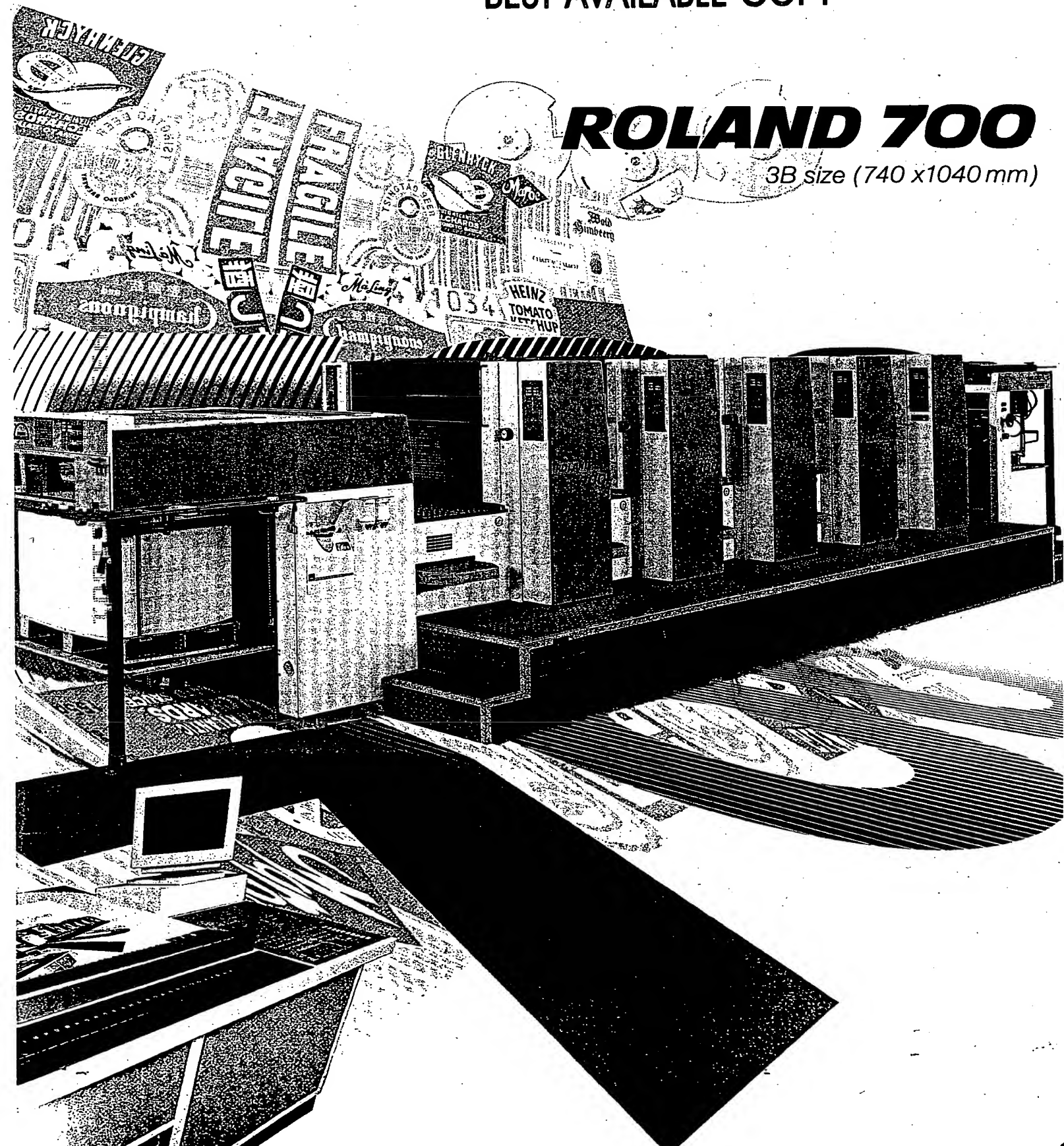




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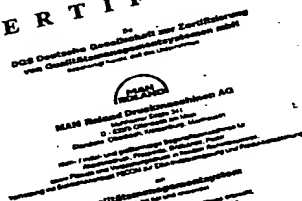
# **ROLAND 700**

3B size (740 x 1040 mm)



MAN Roland has received DIN EN ISO 9001 certification from The German Association for Certification of Quality Management Systems for the sheetfed press production locations in Offenbach, Krotzenburg and Mainhausen. This attests to a high level of quality management in every phase of production. MAN Roland customers are thus assured that they are investing in printing presses that are developed and manufactured to the highest quality standards.

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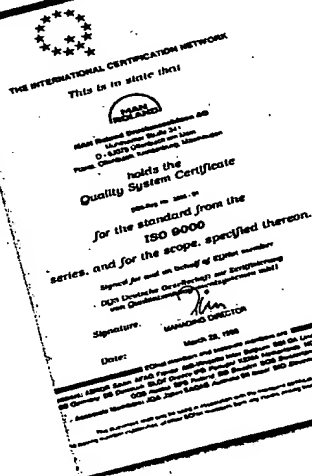
**MAN**  
**ROLAND**  
**MAAG Roland Druckmaschinen AG**  
Kunzinger Straße 341  
40700 Olpe/Stein im Sauerland  
Telefon 02573/94-0


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DNV EN ISO 9001  
certified August 2004

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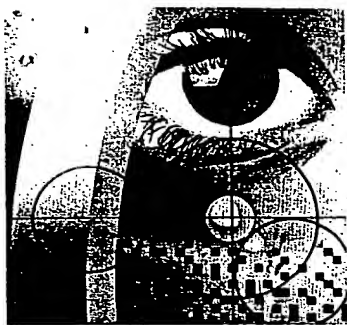



  
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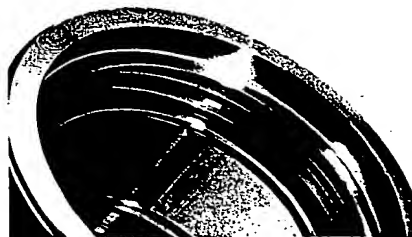
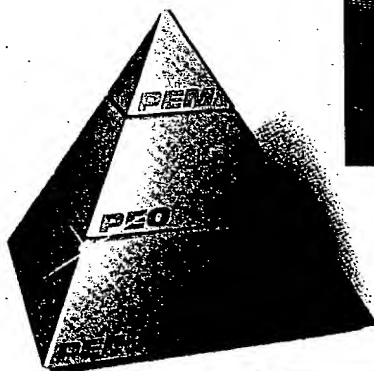
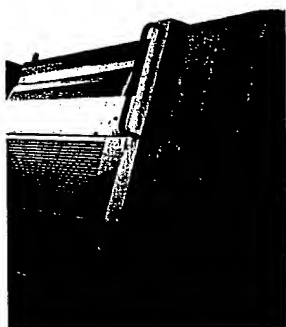
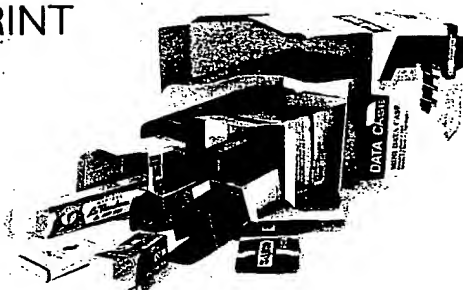
Quality System  
 for the standard from the  
 ISO 9000  
 series, and for the scope specified thereon.

Signature. *[Signature]* MANAGING DIRECTOR

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VISION IN PRINT



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Roland 700

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This brochure describes the presses of the Roland 700 series, including optional equipment. Please refer to the enclosed list of equipment for information on the different versions available. For further details, please contact our sales and service partner for your area. We reserve the right to make changes without prior notice.

## Commercial printing - economy through extensive automation

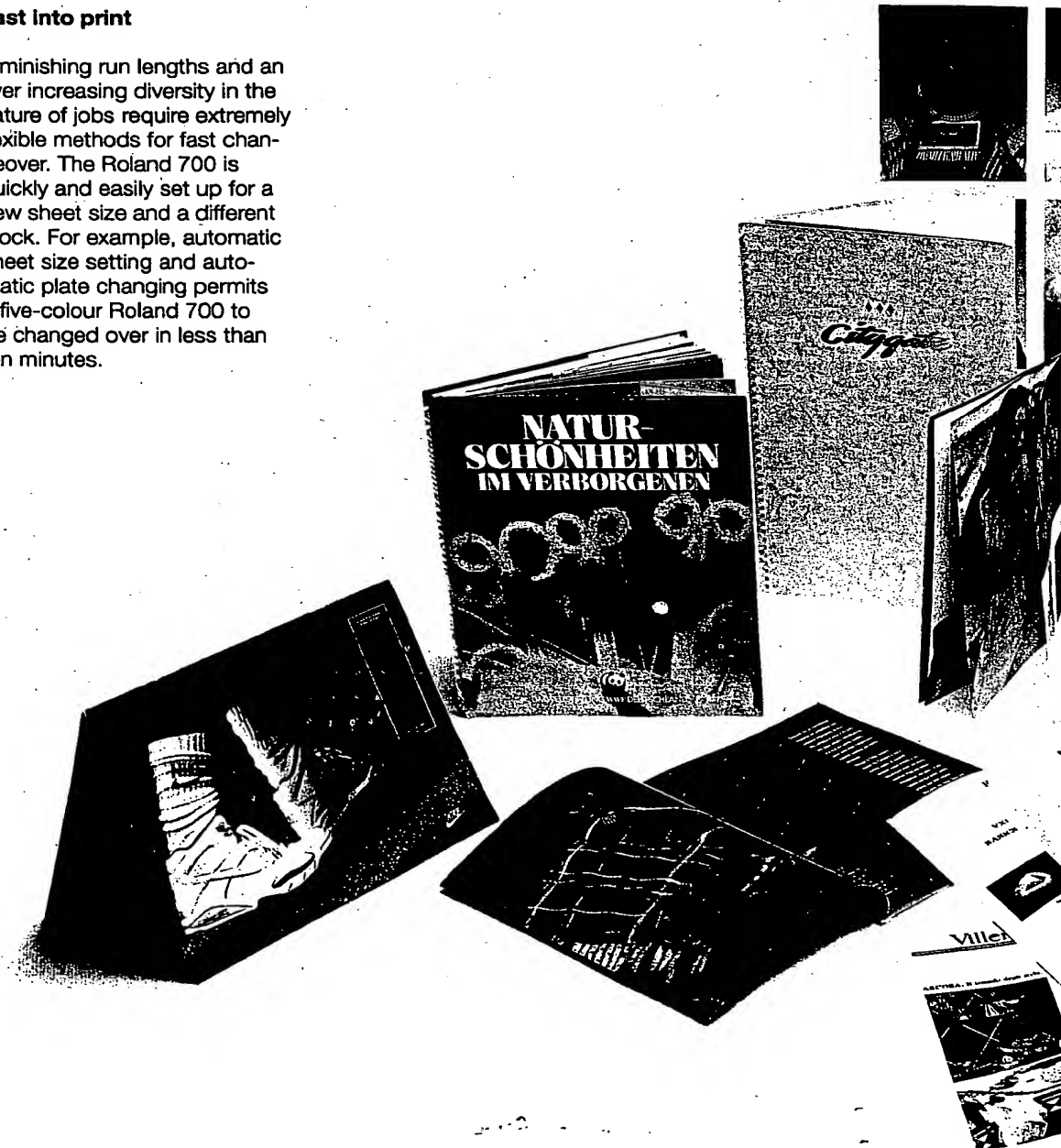
**The demands placed on general commercial plants are constantly changing. Run lengths are decreasing, quality expectations are increasing. You can only operate profitably when you are able to produce fast and in high quality. The Roland 700 uses highly-automated technology to speed up and simplify the printing process. And this gives you a clear lead in a very competitive marketplace.**

Short makeready times with maximum quality security. Flexible job handling with optimal utilization of resources. These are the advantages that the Roland 700 in the sheet size 740 x 1040 mm offers you. The conception of this press provides the ideal response to the demands placed on today's commercial printing plants.

### Fast into print

Diminishing run lengths and an ever increasing diversity in the nature of jobs require extremely flexible methods for fast changeover. The Roland 700 is quickly and easily set up for a new sheet size and a different stock. For example, automatic sheet size setting and automatic plate changing permits a five-colour Roland 700 to be changed over in less than ten minutes.

MUS  
Virginia Ltd





# EUMS

graph



## An all-rounder

The Roland 700 meets all the demands that can possibly be made on a commercial printing plant. Available with up to eight printing units, and with the opportunity to add a coating module or a perfecting system, it covers the entire spectrum. And, with its maximum speed of 15,000 sheets per hour, it can also produce long runs extremely economically. Another advantage: the Roland 700 can handle a wide variety of stocks, from the thinnest paper through to board and special materials such as foil. Precision engineering and design from the feeder right through to the delivery ensures safe and reliable sheet travel.

## Networked operations unites the individual production processes

PECOM is the name of MAN Roland's process electronics concept that links the various production processes into a network. One-time generated data is available at any time to all areas in the plant.

Computer-precise work preparation, clear cost determination and simple job accounting are only a few of many advantages provided by the Roland 700 operating in a network. The technical prerequisite for this is the PECOM Press Center and this is standard equipment.

## Packaging printing - production on an industrial scale

**Efficient packaging printing demands industrial manufacturing methods. With a printing press that can be integrated as a component in your entire manufacturing process, you can significantly increase productivity. The highly-automated Roland 700 gives you real advantages in an increasingly competitive market.**

Sophisticated internal logistics systems are especially important in packaging printing. As a component of the PECOM process electronics system, the console-controlled Roland 700 can be linked to the other production operations in your plant. This considerably increases manufacturing efficiency and output.

### Networking also provides clear cost information

Through the PECOM Press Center, the Roland 700 can be integrated into your plant's data network. This enables all jobs to be prepared at the TPP station and then transferred online to the press, thus increasing throughput. Computers at the management level have instant access to operational data and this provides clear cost information.

### Almost everything: the wide range of stocks

Heavy board, paper for laminating or special materials such as foil: the Roland 700 comfortably prints all packaging stocks in the highest quality. Secure sheet guiding and the special design using double-diameter impression cylinders and Transferers ensure optimal sheet travel through the press - for heavy board as well as the thinnest label papers.

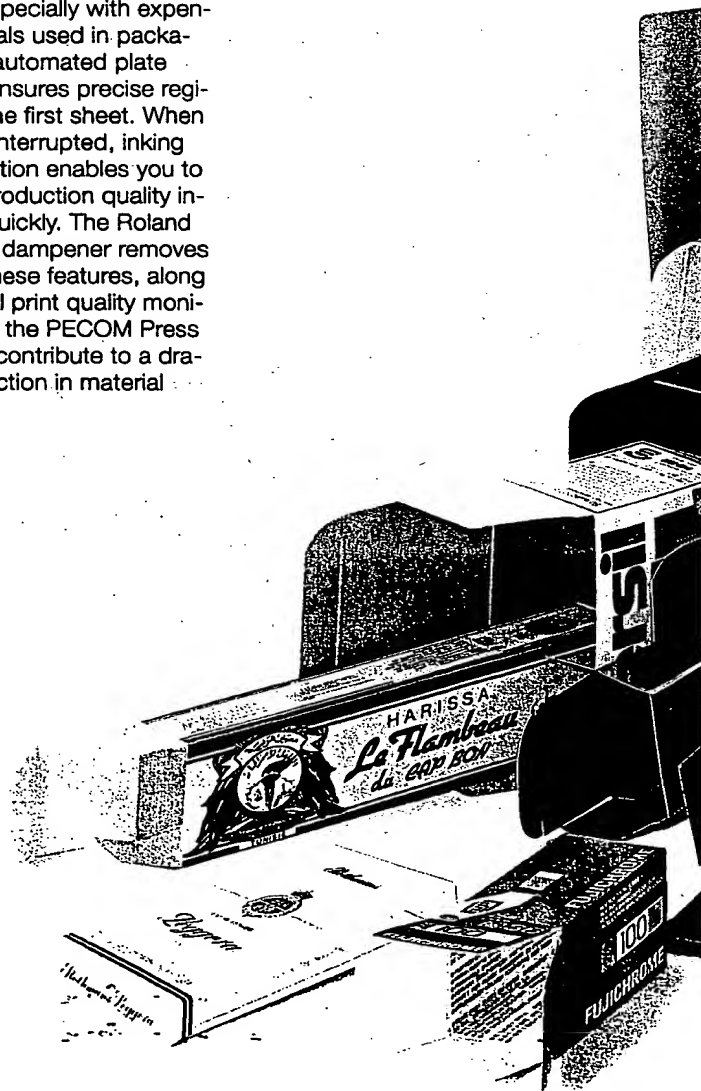
### Fewer waste sheets - lower costs

Less overs can save a lot of money - especially with expensive materials used in packaging. PPL automated plate changing ensures precise register from the first sheet. When printing is interrupted, inking unit separation enables you to return to production quality inking very quickly. The Roland Deltamatic dampener removes hickeys. These features, along with central print quality monitoring from the PECOM Press Center, all contribute to a dramatic reduction in material wastage.

### Automated production for higher quality

The elimination of numerous manual tasks gives the printer more time to concentrate on print quality. The highly-automated technology of the Roland 700 not only results in increased capacity but also ensures consistently high quality and satisfied customers.

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### Printing and coating in one sheet pass

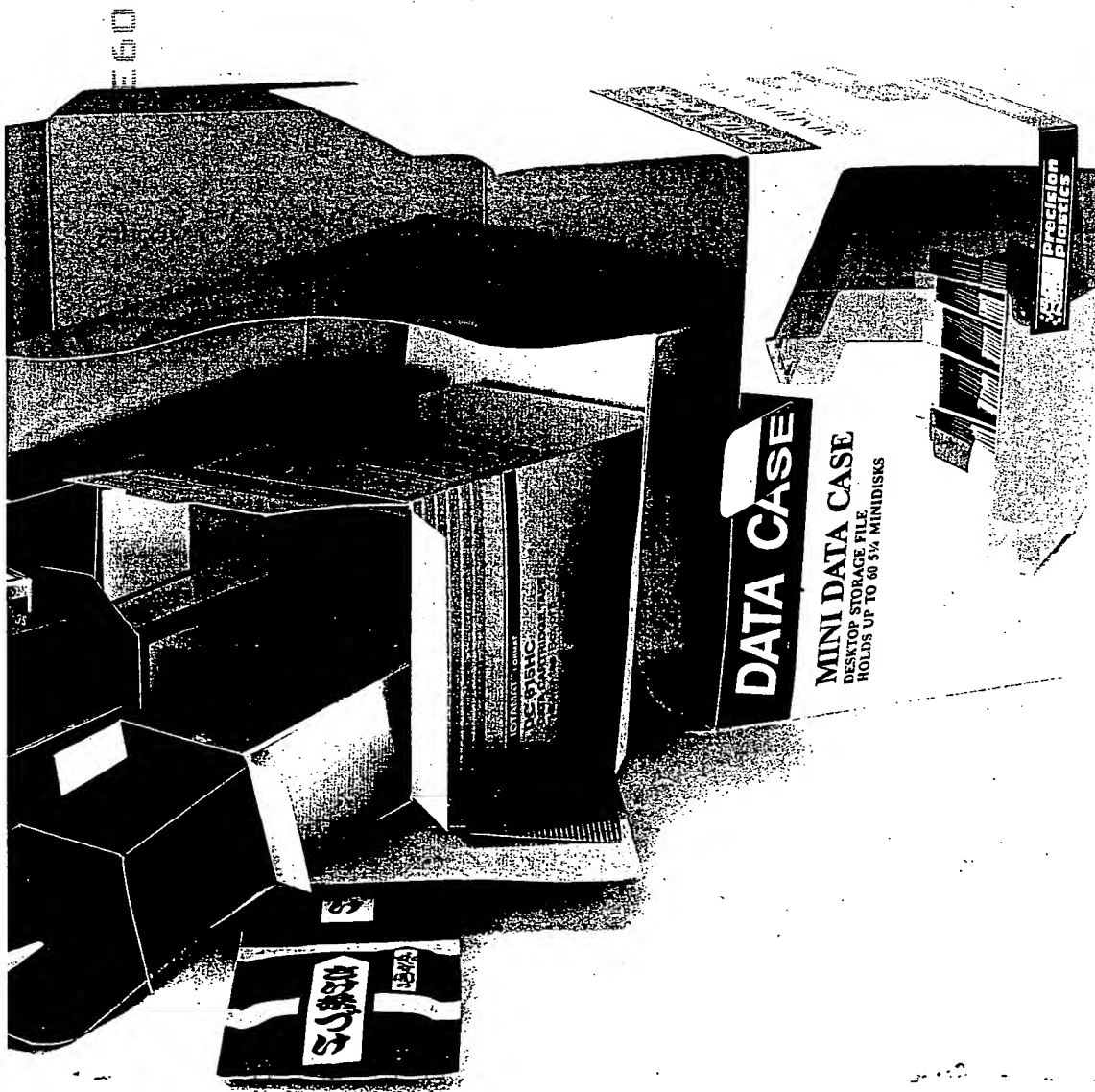
With the Roland 700 coating modules and the Roland Seccomatic dryers, you can print, coat and dry in one sheet pass. By using two coating modules, you can apply different types of coating – using different application methods – in one run.

### Automation in the periphery increases throughput

Carton printers in particular appreciate the value of pile changing at full production speed. This is made possible by non-stop feeder and delivery systems and a new intermediate piling device that all combine to reduce your production time. You can increase your throughput even more by equipping the Roland 700 with the AUPASYS fully-automated pallet transport system.

### Consistent colour without external control bars

Packaging printing demands a consistently high ink charge. And packaging stocks are expensive. The Roland CCI 2D inking regulation system measures single-colour areas directly in the image or colour control bars located wherever you choose. This ensures consistent colour without any additional space having to be reserved for control bars.



## Special applications - equipment for all purposes

**Versatility and specialization need not be a contradiction. This is proven by the Roland 700 with its wide range of applications, excelling in special areas such as stamp printing, printing on foils and book printing. This is partly due to the wide range of equipment available. With a reel sheeter, inking unit temperature control or coating modules, the Roland 700 is a very profitable investment also for special applications.**

### Minimizing waste of expensive materials

Special applications often involve very expensive materials and spoilage is therefore very costly. The Roland 700 has many automation and equipment features that keep spoilage at an extremely low level. The PECOM Pre-Press Interface enables picture data to be taken over directly from the pre-press area and used for inking presettings. Or this data can be determined by the Roland EPS plate scanner. With repeat jobs, all job data from the previous run can be retrieved from the job database. Whichever method he chooses to obtain the data, the printer comes up to colour faster and this minimizes waste.

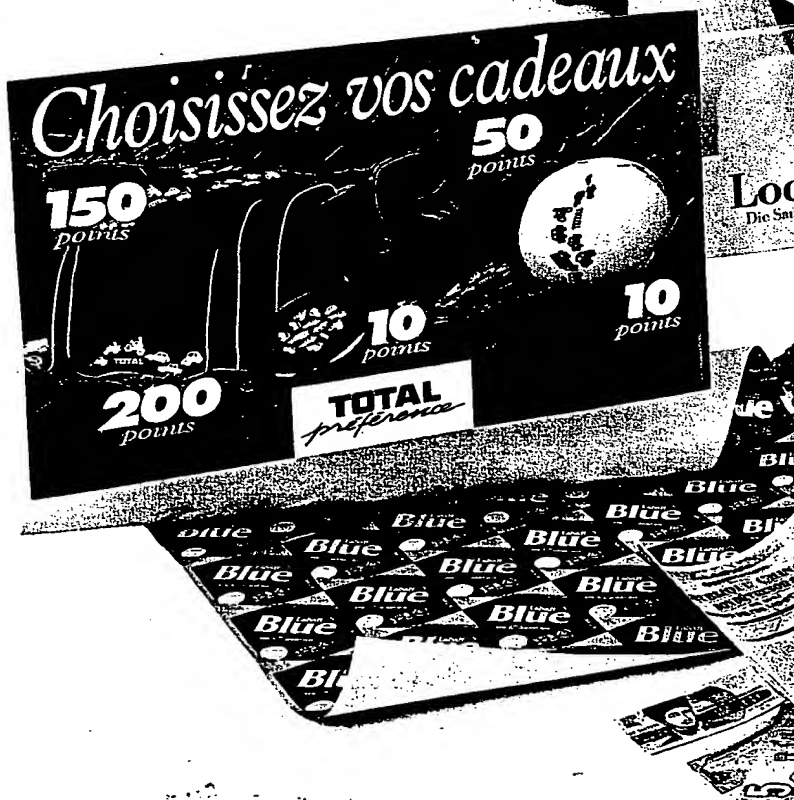
### The substrate can also be special...

Also substrates that are generally difficult to feed can be handled by the Roland 700 without problems. Examples of these are metalised papers or very thin foil. The RB 70 reel sheeter is especially efficient with this type of material.

### Foil: well printed and quickly dried

Fast drying of the ink is particularly important with non-absorbent substrates. The range of Roland Seccomatic drying modules for intermediate and end of press drying using IR, hot air and UV methods assure you of excellent results on all materials.

# Ein gute



s Gefühl



**Postage stamp printing  
demands high precision**

High quality and the shortest possible makeready times also make special applications such as postage stamp printing economically viable. With the PPL automatic plate loading system, 95% of jobs require no register correction after the plates are mounted. The RQM register magnifier is very effective with the exact fitting of a high number of very small multiple-up images and also offers a maximum of operating comfort.

**Book printing:  
single-cylinder perfecting  
for varying production  
modes**

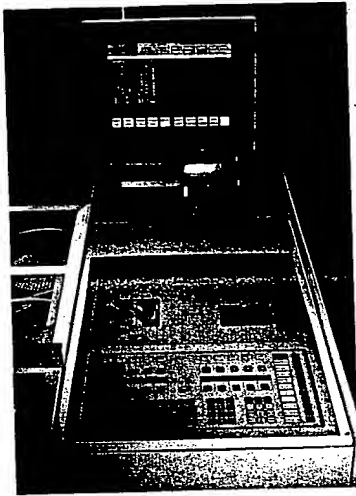
When the job structure is varied and includes book printing for instance, the Roland 700 perfecting system offers you a very high degree of flexibility and this means considerable productivity advantages. From 1/1 colour through 4/4 colours – the book signature can be printed in one sheet pass.

**Waterless offset: high  
quality on non-absorbent  
substrates**

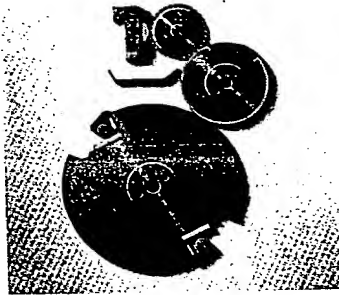
Inking unit temperature control ensures especially stable conditions in the printing unit. This has advantages for conventional offset but even more so for waterless, providing the temperature stability that this process needs. Two variants are available for the Roland 700: temperature control that can be regulated for all units together or for each individual unit. The Deltamatic dampener can also be used when printing waterless to remove hickeys. A suction device is also available that prevents particles from reaching the plate in the first place.

At a glance

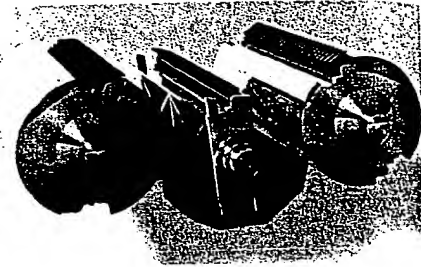
## A tour of the press



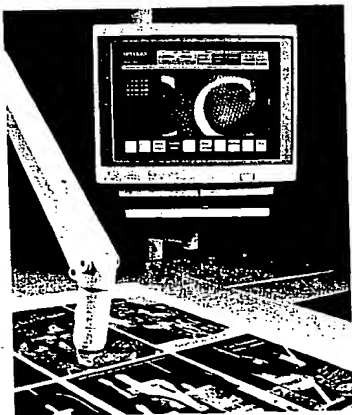
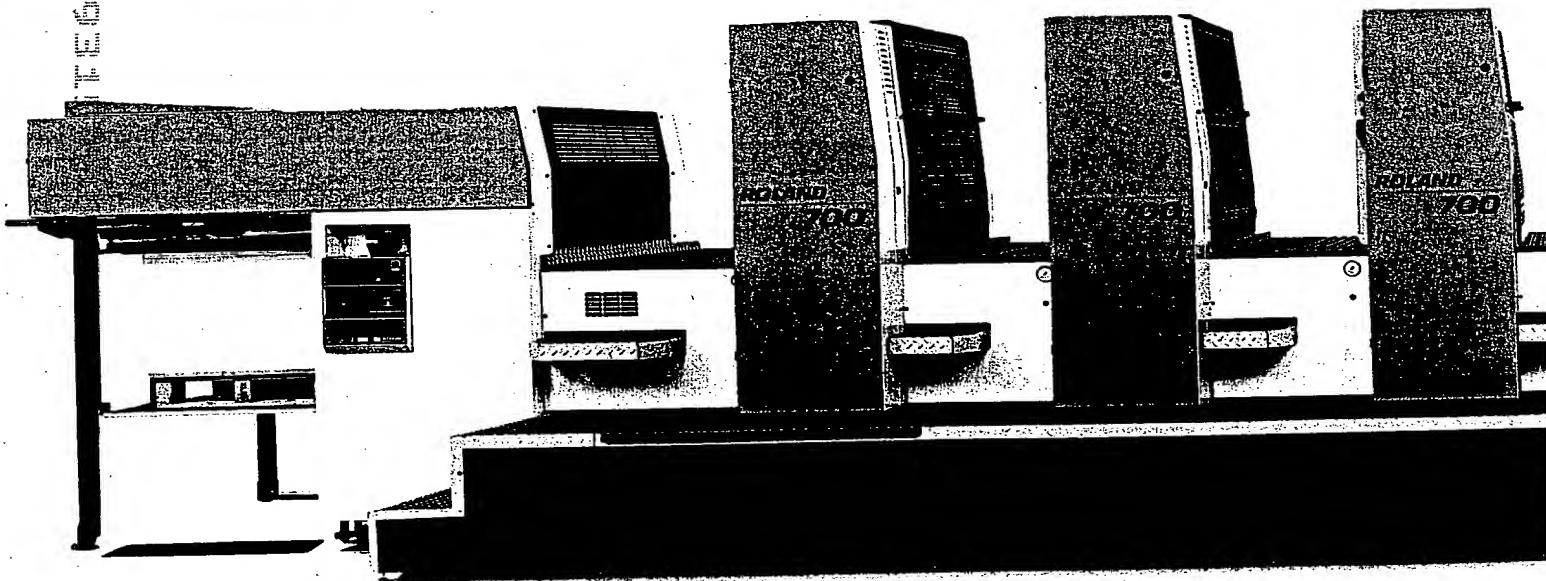
Central press operation and control from the PECOM Press Center.



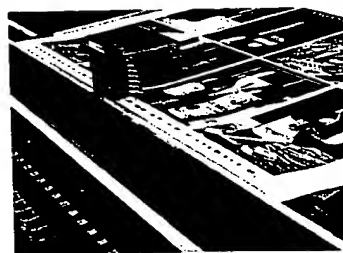
Inline enhancement: the chamber-type doctor blade method



Transferers for smear-free sheet guiding



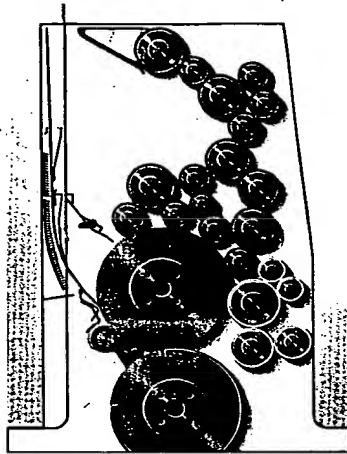
Register control with video magnifier



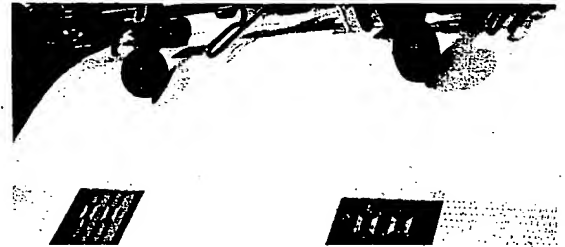
Roland CCI inking regulation



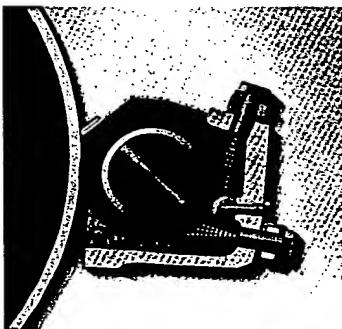
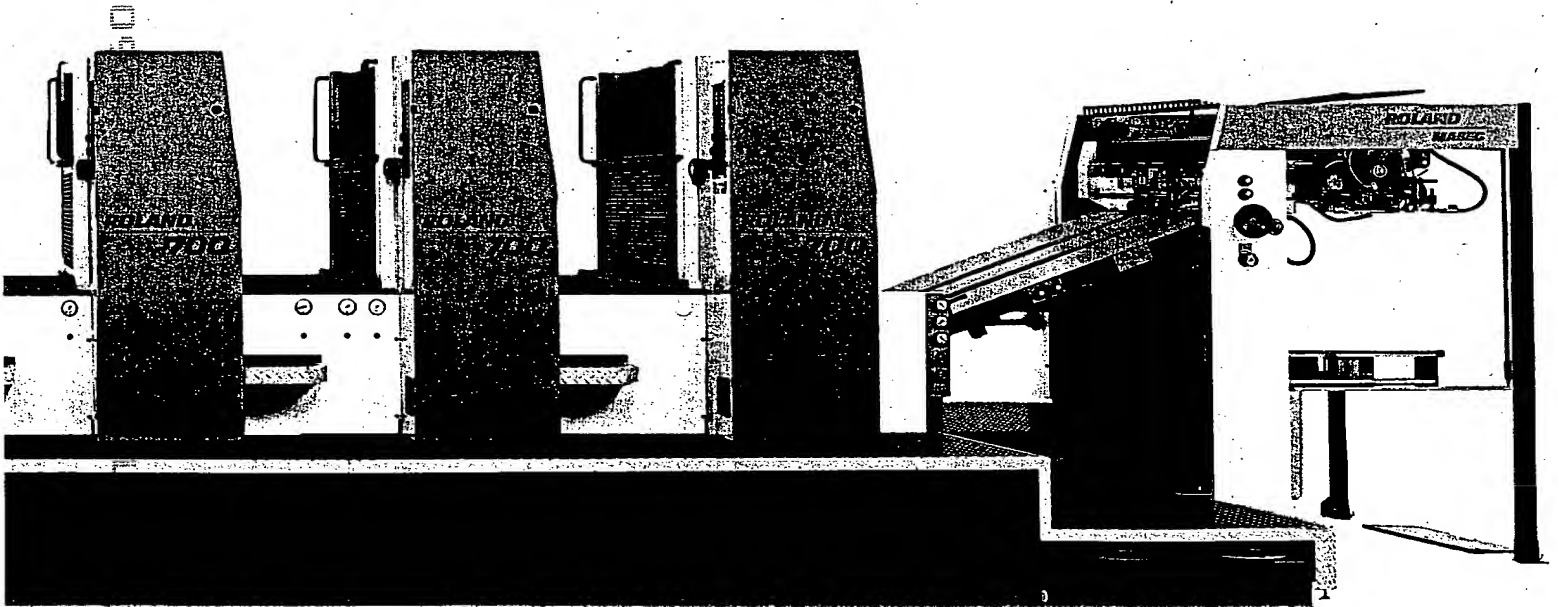
Precise ink and fountain solution feed



Automated or fully-automated  
plate changing



Suction feedboard for markless  
sheet feeding



Automatic washing systems for inking  
units, blankets and impression cylinders



Single-cylinder perfecting system  
with changeover from  
the PECOM Press Center



## **Control console operation - guidance and simplicity**

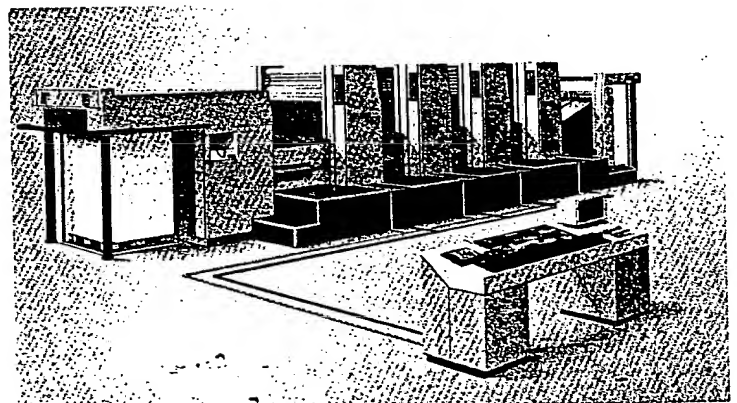
**Operation of the Roland 700 from a central control console - the PECOM Press Center - provides two very important advantages: access to stored data reduces makeready times; centralized monitoring of all press functions increases production reliability. Higher productivity and the highest quality have a very positive effect on your profitability.**

### **The PECOM Press Center - clear information, fast response**

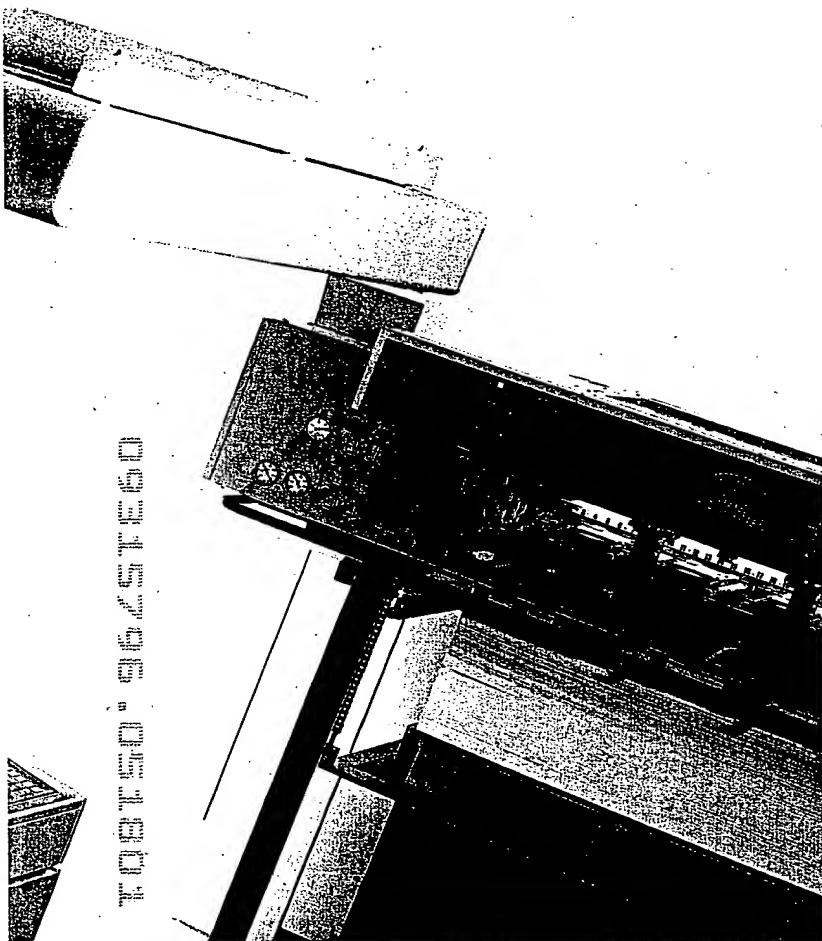
Providing the printer with a clear overview of all press functions has a positive effect on the printed result. Instead of a variety of small displays, all the information that he needs is contained in one video monitor. This allows him to focus his attention on the essentials and thus increases operational reliability. Data exchange between the PECOM Press Center and the press itself is by means of fibre optics - extremely fast and interference-free.

### **Access to stored data increases capacity**

Data for up to 5,000 jobs can be stored in the PECOM Press Center, reducing makeready times for repeat jobs to an absolute minimum. Also new jobs can be quickly prepared by calling up data from similar jobs and making minor modifications. All this can be done while the press is printing. These advantages alone can add up to a time saving of 36 hours per annum. This increases your capacity by seven shifts every year.

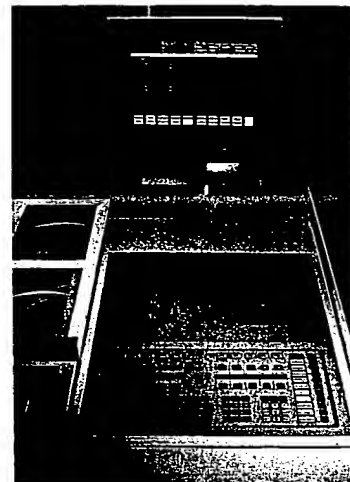


Fast and interference-free:  
data transfer via fibre optics



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A clear overview of all functions  
from the monitor

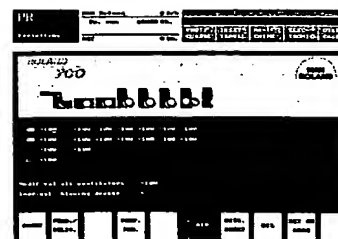
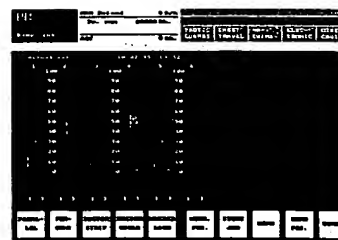
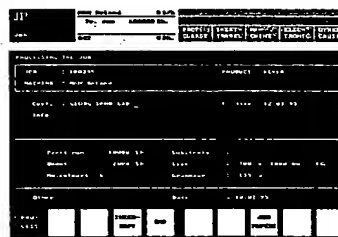


### Full control also of peripheral items

Powder sprayer, dampening solution conditioning and almost all other peripheral items can be controlled from the PECOM Press Center. Correct operation is automatically monitored. A diagnostic system reports in clear text form on operating conditions. If for example a guard is inadvertently left open, a message is displayed on the monitor.

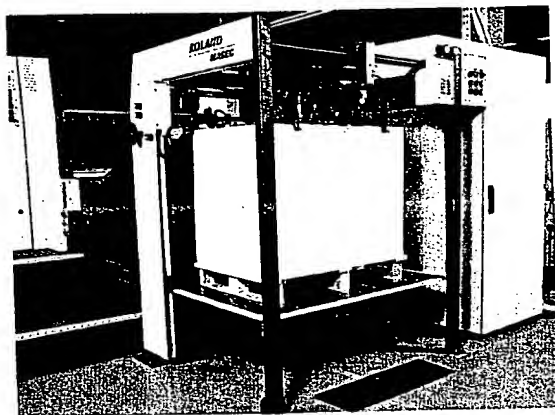
### Fast control through clearly arranged functions

The visual arrangement of the function control programs corresponds to the requirements of the pressroom. No endless searching through complicated menus but instead clear and easy to follow sequences accessed and implemented via a user-friendly foil keyboard. Logically structured applications modules group together all related activities such as inking control and regulation or register, thus providing fast access.



## A well-developed sheet guiding system for high production reliability

It would be ideal if the sheet could be transported through a printing press from feeder to delivery without any sheet guiding contact points. This is not yet possible but MAN Roland's design engineers have come close with the development of a sheet transport system that ensures that the freshly-printed surface is not disturbed. The Transferers and air tracks used on the Roland 700 provide markless sheet transport. With the automatic sheet size setting, the press is quickly and easily changed over to another sheet size and thickness.



The feeder: automatic sheet size setting for short makereadies; suction feedboard for markless sheet transport



It starts with the suction feedboard where there are no rolls or brushes that could mark sheets already printed one side or sensitive stocks. Pneumatic sidelays ensure markless alignment. Between units, the Transferers transport the sheet without touching the printed surface. Air tracks support the sheet during travel. In the delivery area, blast air and suction rollers brake the sheet and ensure safe and even piling even at the highest speed.

### Fast sheet size changeover

The following example shows how quickly you can set up your Roland 700 for a new sheet size: with automated plate changing and the same colour sequence, a five-colour press set up for 150 gsm art board 610 x 860 mm can be changed over to 80 gsm uncoated paper 700 x 1000 mm in only ten minutes. All necessary settings are automatically carried out as other changeover steps are attended to. All the printer needs to do is input the new sheet size and thickness and up to 14 setting operations such as repositioning of the suction head and the sheet

stops in feeder and delivery take place as almost unnoticed background operations. And even this input is unnecessary if the job has been prepared at a TPP station or is available from the repeat job database.





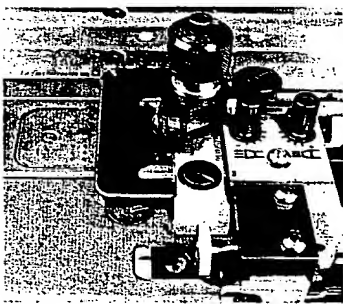
### Sheet monitoring for reliable production

Because every sheet is monitored right through the press, the probability of errors is reduced to a minimum. This assures you of consistent quality and avoids interruptions to production. Double sheets are detected and stopped before they enter the press. An additional electronic double sheet detector is provided for especially thin stocks.

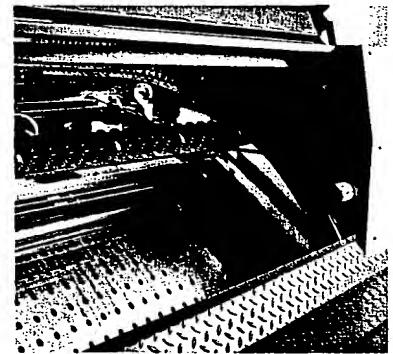
Misaligned sheets are recognized early and deviations from the optimal infeed line are visually indicated in a trend display. This allows the printer to intervene and correct sheet alignment before this leads to a feeder stop.

### Printing also from a reel with the RB 70 sheeter

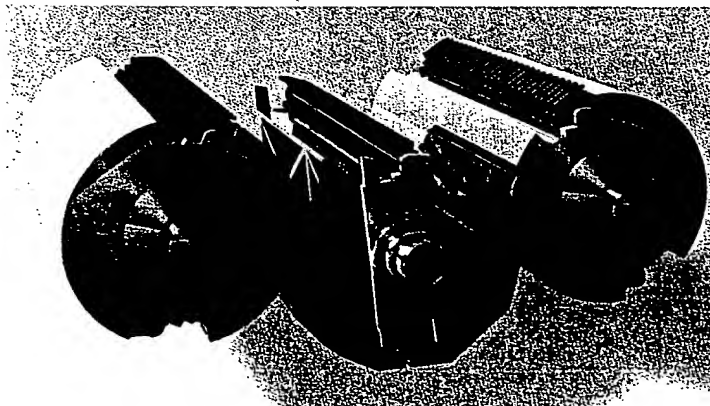
An optional item for the Roland 700 that is especially effective for many applications and can broaden your range of services is the RB 70 reel sheeter. This gives you access to certain stocks that are only available in reel form. And some stocks, such as very thin foils, can be easily fed from a reel but are very difficult to handle in sheet form. There is also the cost factor: many stocks are considerably cheaper in reel form.



Exact sheet alignment by pneumatic sidelay



Secure sheet guiding by air tracks



The Transferter: smear-free sheet transfer

## Plate changing - unmatched for speed and productivity

**The shorter the run lengths, the more important short makeready times become. When you can dramatically reduce the time normally needed for plate changing by using automated plate changing on the Roland 700, even with the typically wide range of jobs that a general commercial printer has to handle, you achieve continuous production and that means high productivity. It also means that your press is amortized sooner.**

The more often you have to change your Roland 700 over for a new job, the more beneficial is the automation provided by PPL (Power Plate Loading) or the full automation provided by APL (Automatic Plate Loading). These systems save a very considerable amount of time with every job change.

### PPL brings higher capacity with fewer waste sheets

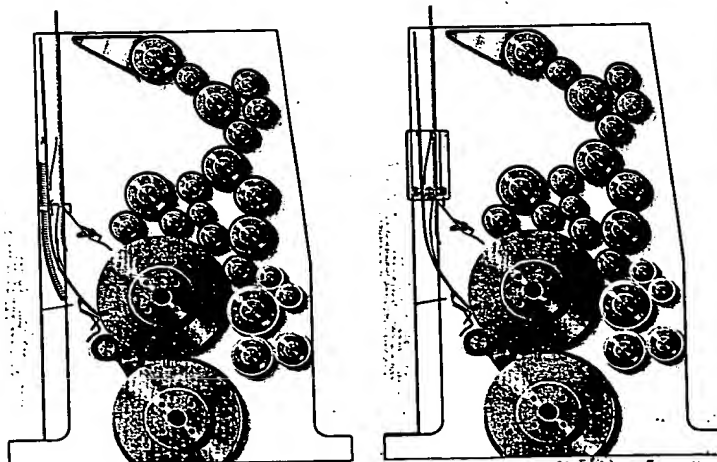
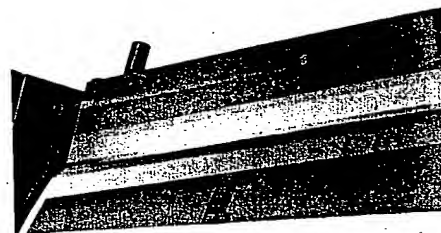
The major benefits of PPL are increased capacity and reduction of waste sheets. The register accuracy is so high that with 95% of jobs no correction is needed after plate mounting. PPL offers even further advantages: the printer can change plates without opening the guards. As the used plate is guided automatically into the exit chute, from where it can be removed at any convenient time, the operator places the new plate in the loading chute. An electronic monitoring device in the register pins checks that the plate is precisely positioned in the front plate clamp.

### APL to further standardize operations

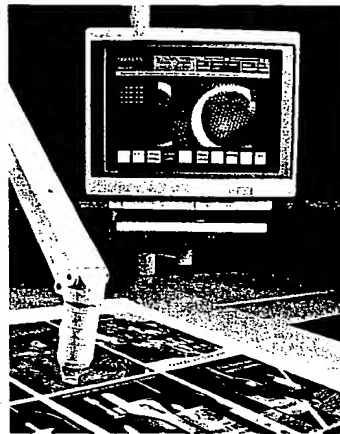
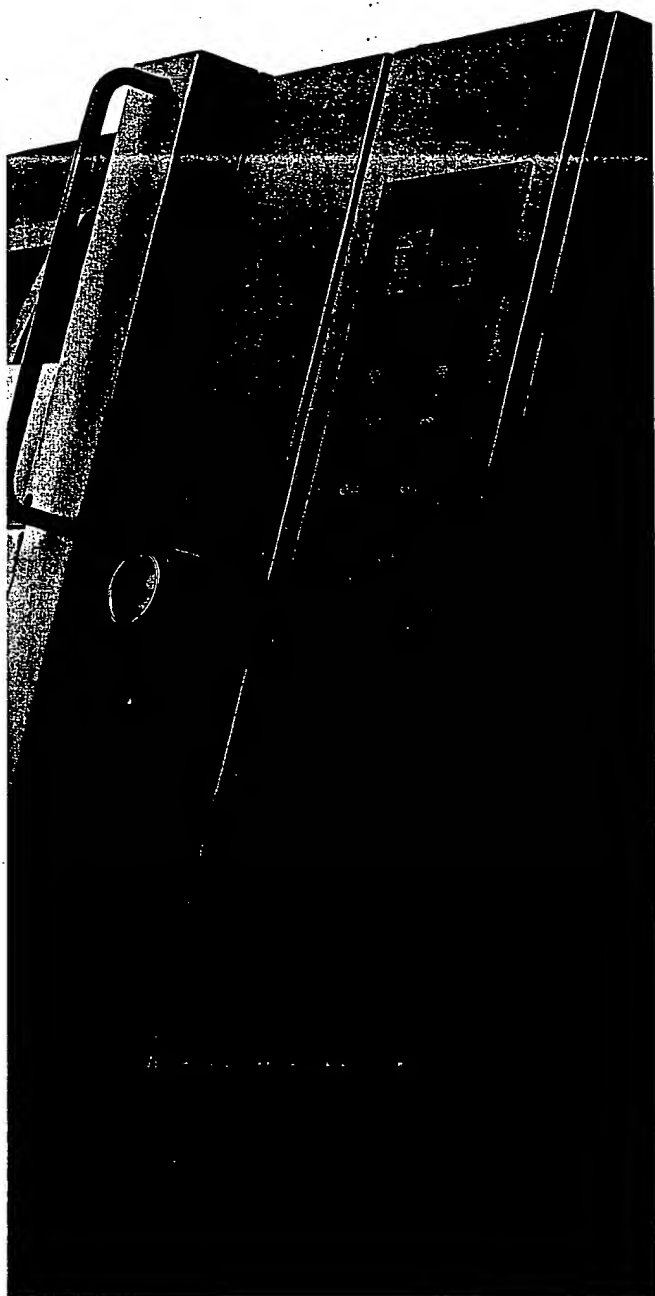
The fully-automated APL function makes operation even more simple, changing all plates without any manual intervention. The plates are loaded quickly and precisely every time. This excludes any possibility of human error and provides you with fully standardized operating conditions.

### Plate compatibility

Another point: PPL and APL can handle new plates with straight edges as well as previously-used plates. Both systems offer plate compatibility with other presses in this sheet size category - MAN Roland as well as presses from other significant manufacturers - either as standard or available on request.



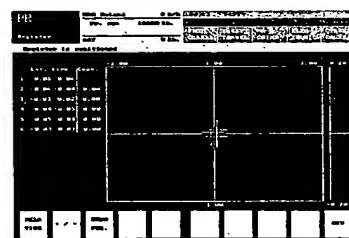
PPL automatic plate changing (left),  
APL fully-automatic plate changing  
(right)



Automated register control with the video magnifier

#### Register adjustments – remote controlled or even fully automated

Adjustments to lateral, circumferential and diagonal register are made from the PECOM Press Center. Changes to diagonal register do not affect printing unit settings because the adjustment takes place in the Transferter. It is therefore not necessary to reset the position of the forme inking rollers – a further contribution to reduced waste sheets and consistent print quality. With the RQM (Register and Quality Magnifier) you can also make register corrections in very difficult subjects by remote control. Very fine picture elements such as reverse lines can be used as reference points for regulation. And you can examine results by displaying the picture element on the Press Center monitor enlarged 50 times. Automatic regulation of register on the run is also possible by means of a measuring system using cameras mounted in the last printing unit and special register crosses. The printer inputs the position of the crosses and these are automatically tracked by the cameras.



#### Print length adjustments fast and easy

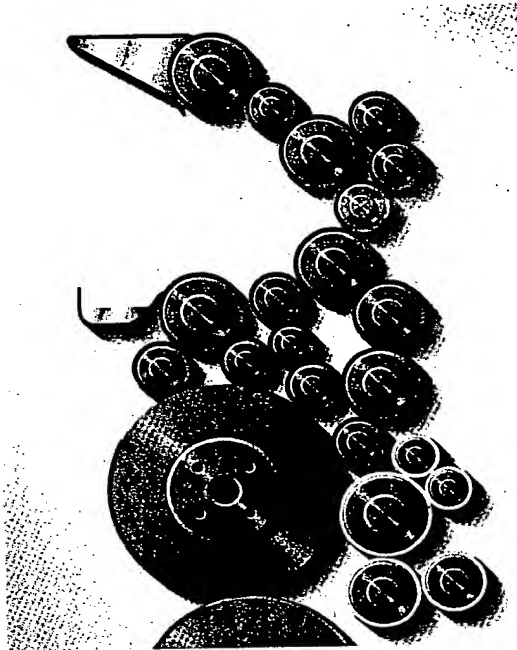
The special slide bearings used for the plate and blanket cylinders permit printing with or without bearer contact. This enables print length adjustments to be made quickly and easily.

#### Quickstart saves start-up waste

Quickstart is the name of the new system developed for the Roland 700. The press accelerates up to full production speed before the first sheet is printed. Tests on a six-colour Roland 700 showed that start-up waste can be reduced by 50 %.

## **New inking and dampening units for the highest print quality**

**You know the problems: unstable ink feed, ghosting, uneven ink coverage, hickeys - resulting in expensive waste sheets. The Roland 700 shows that there is an alternative to this. It is precisely with difficult formes that the new inking and dampening units show what they are capable of. Superior printing press technology for trouble-free inking of the highest quality.**



Inking and dampening units with many extras

The special roller geometry used on the Roland 700 is the key: fast reaction to adjustments and very stable ink feed ensure consistently high-quality printing.

### **Automatic inking-up**

At the start of a new job, all inking units are inked-up with exactly the amount of ink that is required for the job. This represents controlled and carefully measured use of materials from the very beginning.

### **Inking unit separation reduces waste sheets**

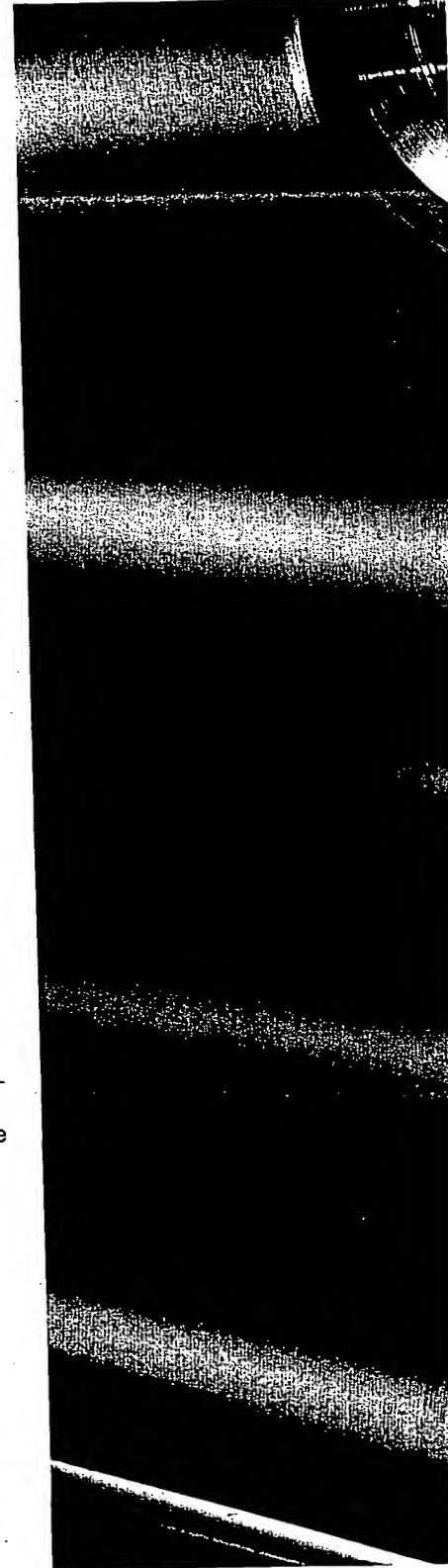
When printing is interrupted, automatic inking unit separation preserves the inking profile in the roller train. When printing starts again, production quality inking is achieved faster and that means fewer waste sheets.

### **To avoid ghosting...**

...steplessly adjustable oscillation of all forme inking rollers can be set, from outside the press during production.

### **And ink fade...**

...can be prevented by adjusting the stroke of the ink oscillators in 30° increments from the PECOM Press Center while the press is running.



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## Highest quality with even the most delicate colour shades

**Delicate colour shades in the subject demand special skills from the printer. With Roland RCI and Roland CCI you can achieve very fine colour matching precisely and quickly. The presetting data needed for this is available to you within seconds either online or from a data carrier. And here is our secret recipe for formes with very low image coverage: LCS - Low Coverage Stabilisation - permits a constant ink feed even with formes that have very fine image elements that require the minimum of inking.**

**A unique new development: excellent results with low coverage formes**

A real-life example: a five-colour job with the fifth colour a special forme of only a few fine lines in a specific house colour that must be very precisely reproduced. However, such jobs have always presented problems because the low ink consumption of the special colour plate made consistent inking extremely difficult. Not any more - MAN Roland has solved this problem with Low Coverage Stabilisation. An automated system that opens only every second ink slide a defined distance and uses maximum ink vibrator stripe causes the ink to circulate back from the inking unit to the ink fountain. This prevents ink build-up or emulsification on the rollers. It also reacts extremely quickly to ink feed changes. The bottom line: the Roland 700 with LCS offers you high-quality printed results also with formes containing extremely fine images.



Roland CCI inking regulation system

### Inking control with RCI

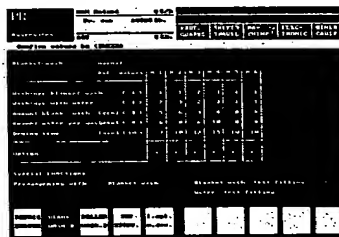
The Roland RCI inking control system is integrated in the PECOM Press Center and dramatically shortens makeready times. The PECOM Pre-press Interface provides you with presetting data directly from the pre-press area or from the electronic plate scanner. With repeat jobs, the printer has access to all necessary data from the internal job database in the PECOM Press Center. Digital transfer of data from the console to the press permits the



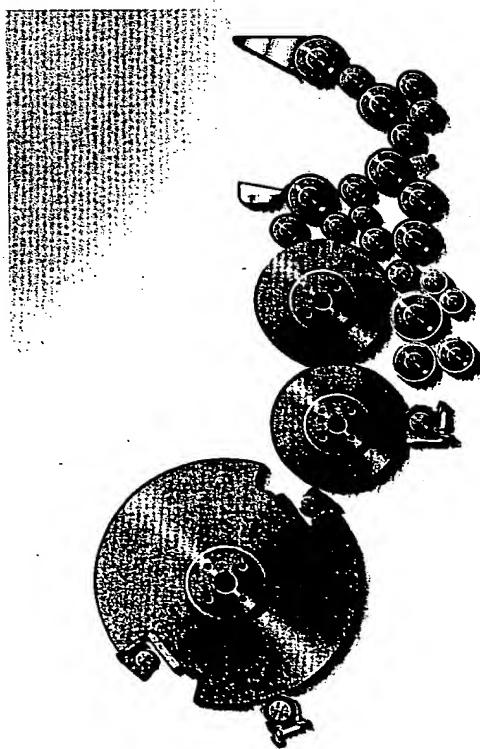
**Environment protection and economical operation – the Roland 700's automatic washing systems unite these ideals. The new brush-type washing device for blankets and impression cylinders use a very low amount of washing solution and still wash quickly and thoroughly. A recycling device enables you to clean and re-use washing solutions containing solvents. It is of course also possible to use vegetable oil-based solutions and this is an especially environment-compatible method.**

### Comfortable washing of the inking units

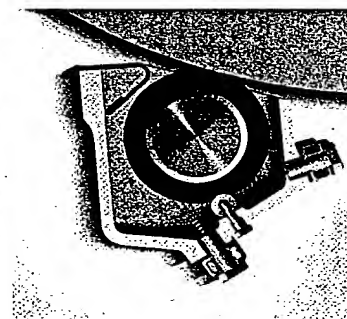
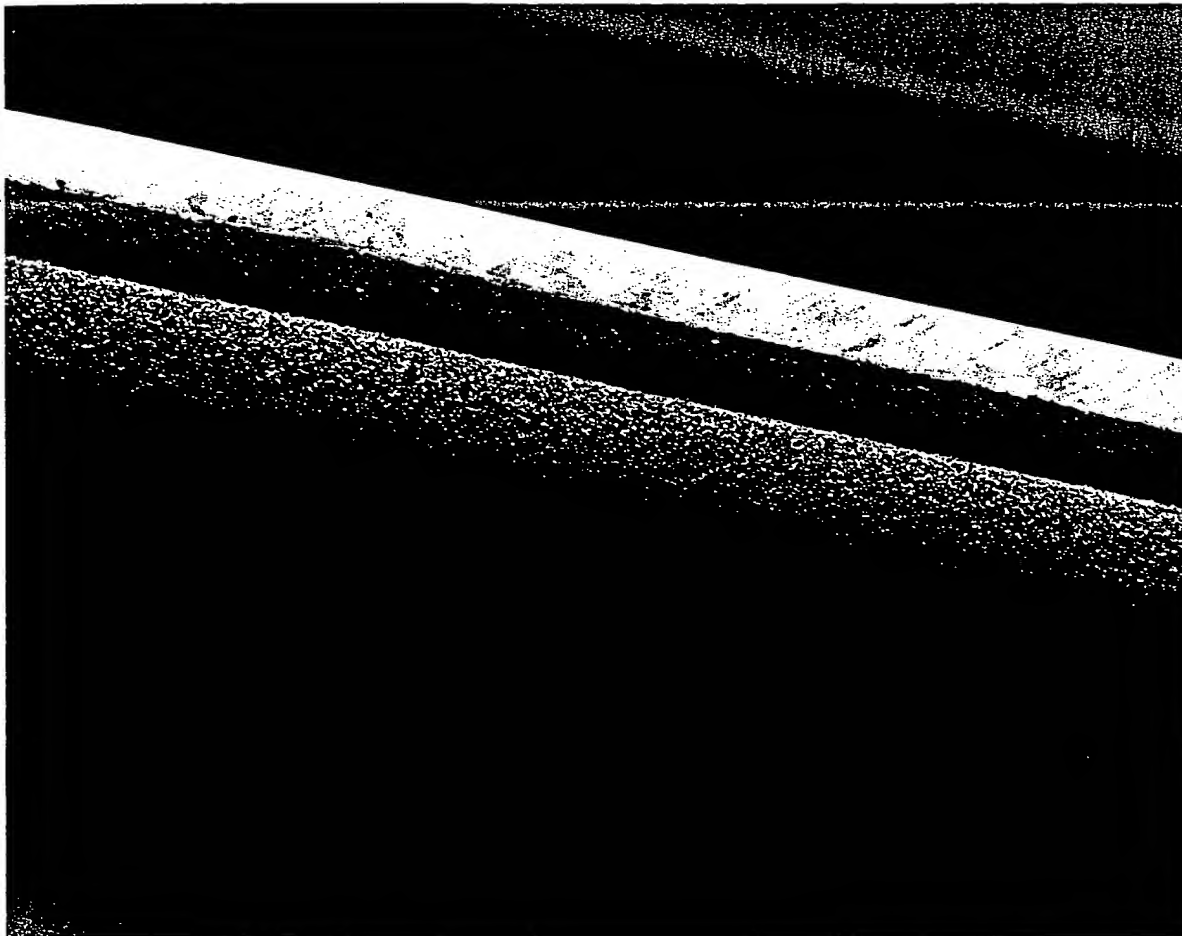
You can activate inking unit wash-up centrally from the PECOM Press Center. You can also define programs for different washing requirements and simply call them up when you need them.



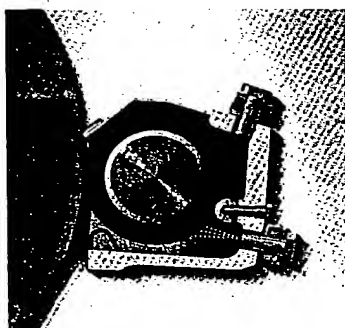
Defined washing solution dosage,  
centrally controlled from the  
PECOM Press Center



### Automatic washing systems for inking units, blankets and impression cylinders



Automatic impression cylinder washing device



Automatic blanket washing device

### **Blankets and impression cylinders cleaned within minutes**

The bad old days: what used to be a tiresome and time-consuming task is today accomplished in less than two minutes with the automatic blanket and impression cylinder washing device on the Roland 700.

Exact dosage depending on the degree of soiling means that you also use less washing solution and this is good for the environment.

The washing programs can be simply defined and activated from the PECOM Press Center.

### **Recycling is better than disposal**

For example, the washing brushes have a useful life of several years. When they are worn, the core can be fitted with a new brush covering.

Used washing solution containing solvents can be recycled in a solvent recovery unit. This unit has been tested and approved by the German

Employers' Liability Insurance Association. Up to 68 litres of solvent can be recovered within 12 hours. Alone through eliminating the costs for new solvent and the costs for disposal of the used solvent, the unit can be amortized in around one year.

## Quality and economy with inline enhancement

**Whether you need to produce the finest of gold lines, a royal coat of arms or a high-gloss protective layer - the demands made on coating are extremely high. Growing sophistication in product enhancement requires new and innovative methods. The Roland 700 coating modules are setting new standards in all areas of print enhancement.**

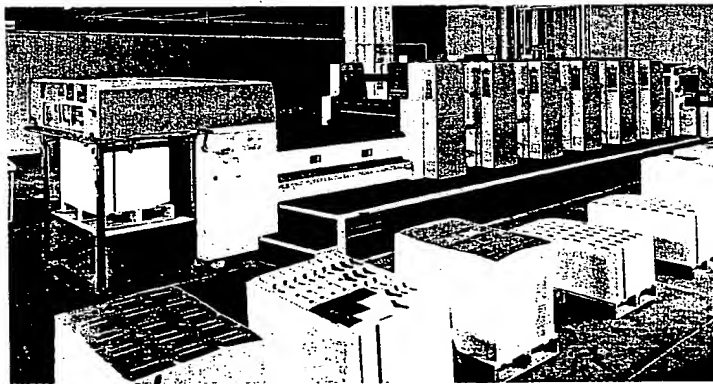
The technical advancement of the Roland 700 coating modules has opened up a new dimension in the quality of print enhancement. The brilliant results speak for themselves. But the Roland 700 is also setting new standards of economy: equipped with two coating modules, it can perform two enhancement operations in one sheet pass.

### All manner of coatings

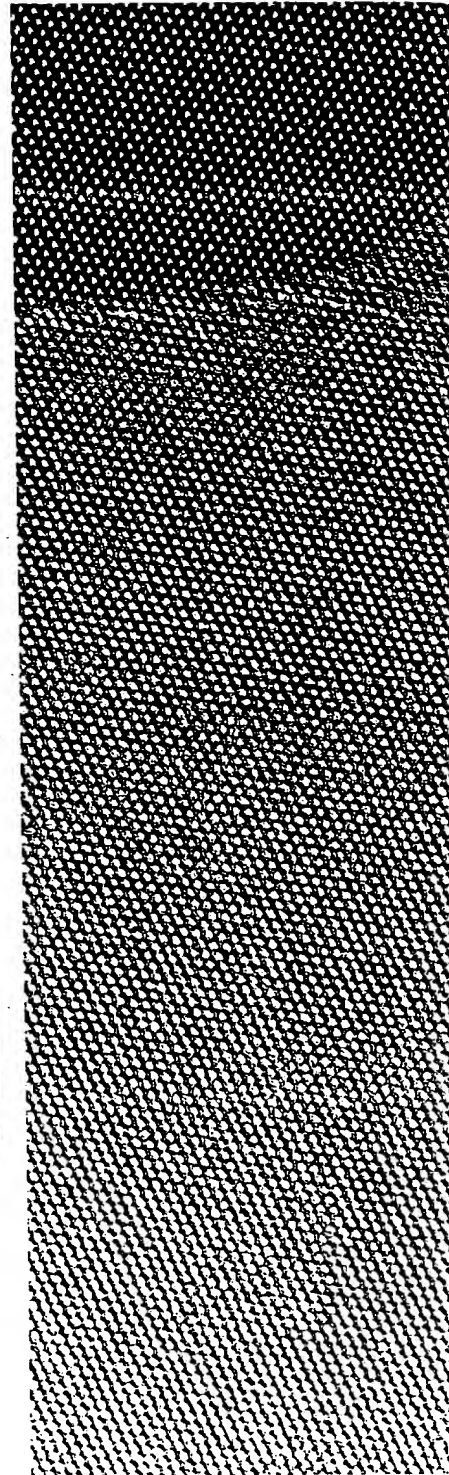
Gold or silver aqueous inks, UV or aqueous coatings - there is no restriction on the type of inks or coatings that can be used. The Roland 700 can process them all with the same high degree of precision on all substrates.

### Precise metering saves money

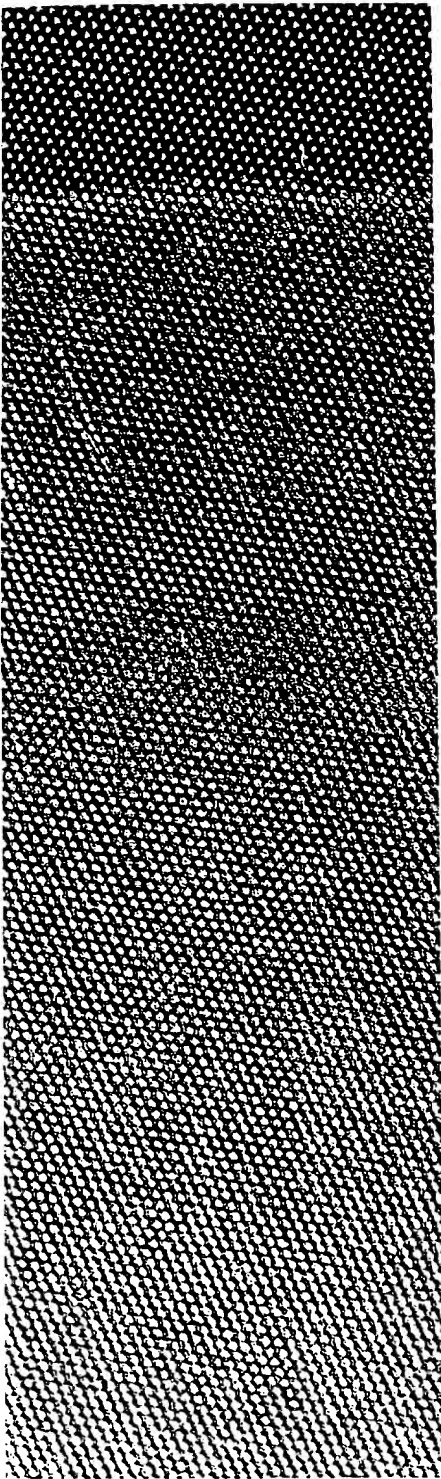
Precise metering of the coating is not only important for the quality of the result, it is also important from the cost aspect. The Roland 700 offers a choice of two methods that both ensure precise metering. The two-roller method provides fast reaction to changes in the amount of coating applied. The other method uses a chamber-type doctor blade and is suitable for a wide range of applications, but is especially effective with fine golds and silvers with low coverage. A laser-engraved, ceramic-coated anilox roller together with a chamber-type doctor blade meters the coating extremely precisely over the full width of the sheet. This method is not affected by viscosity fluctuations, nor is it affected by changes in press speed.



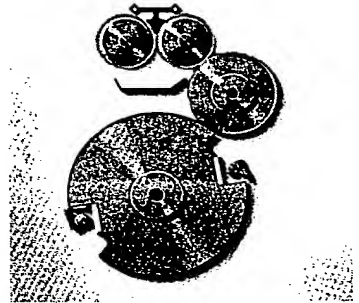
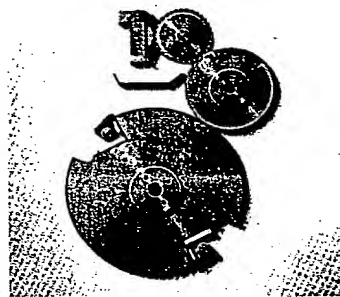
Five-colour Roland 700 with coating module and extended delivery



Magnified 6X: the surface of the anilox roller



A choice of metering methods for coating: with chamber-type doctor blade and anilox roller (left) or with a two-roller system (right)

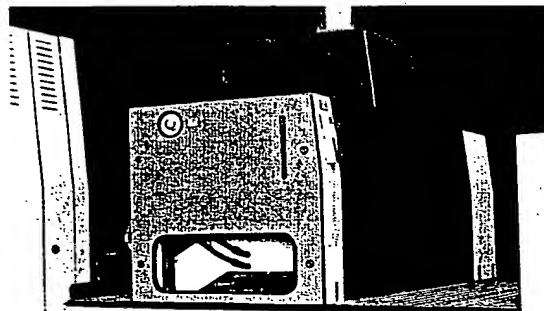


#### Metering systems changed fast

The requirements of the job currently being run determines which system you use. These requirements vary constantly in a modern printing plant, making fast changeover from one method to the other essential. The Roland 700 coating modules have good accessibility and can be changed over quickly and easily.

#### Fast and reliable drying

The Roland Seccomatic drying systems have proven their worth in hundreds of Roland 700 installations, providing fast and reliable drying. Partitioning of the drying area from the rest of the delivery provides ideal drying conditions. This limits the spread of humid air and this relatively small volume is extracted in order to support the drying process. To meet all requirements, the Roland 700 can be equipped with IR, IR/hot air and also UV intermediate and end of press dryers.



Roland Seccomatic:  
IR and hot air intermediate drying



## The highest performance and cost clarity in a data network

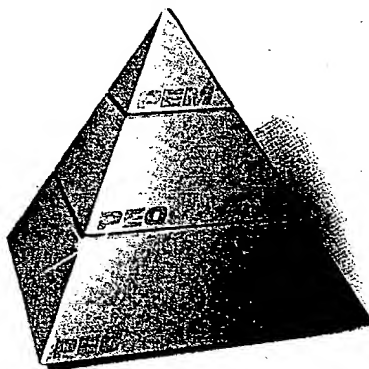
**Digital data technology has also set new standards in print production. This is because a printing press integrated in a data network can produce at a level that a conventional press cannot approach. The Roland 700 is the central component in the PECOM process electronics concept - a system that enables data to be communicated over many areas and levels of production in order to increase output, provide clear cost information and avoid multiple handling.**

MAN Roland's PECOM process electronics system provides you with the means to efficiently structure data handling in your plant and make it available to each individual production cell. The base level is called Process Electronic Control and encompasses the production unit, i.e. the press, with all its functions. This level is linked to the middle level - Process Electronic Organisation - that covers organisation for and in the machine room such as plate scanning and also tech-

all companies wishing to achieve industrial-scale production. And standardization is a must for DIN/ISO 9000 accreditation.

### Knowing where you stand

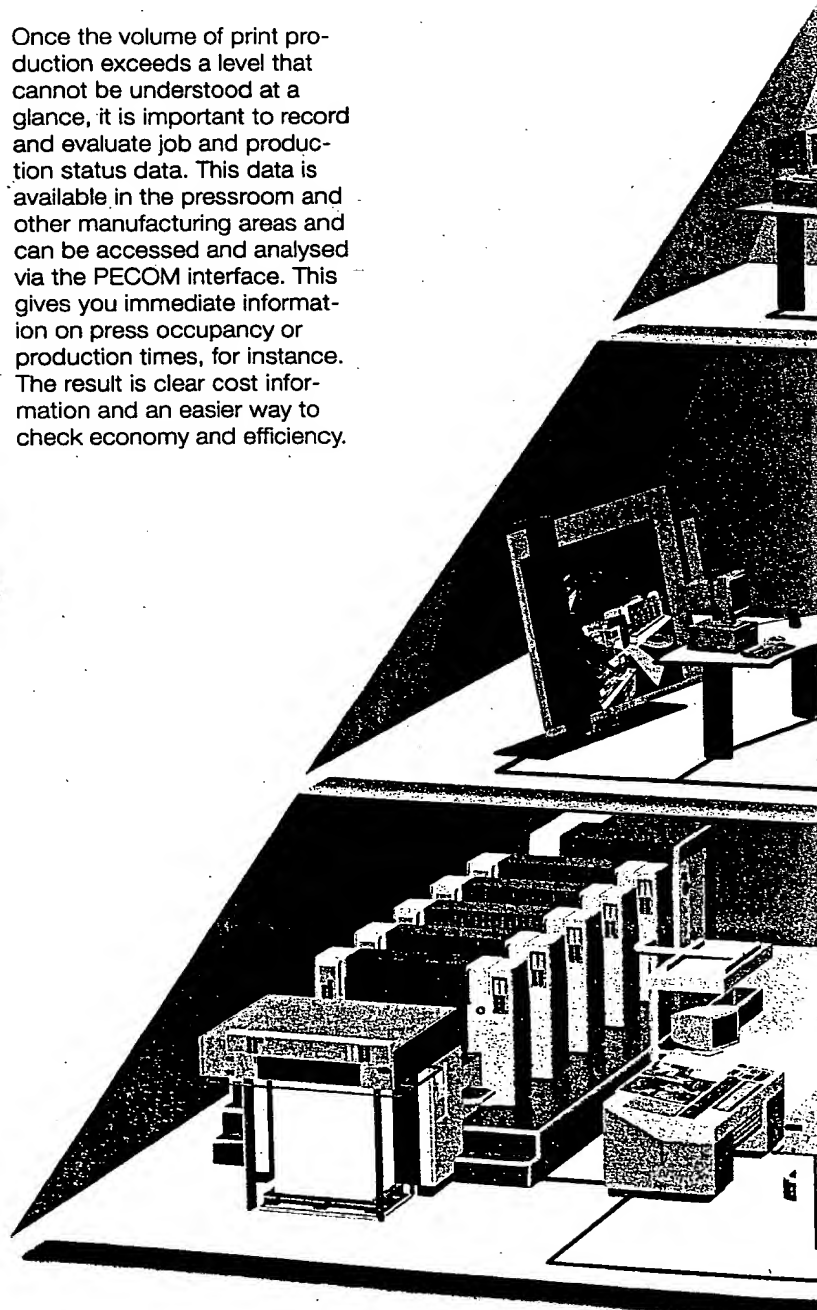
Once the volume of print production exceeds a level that cannot be understood at a glance, it is important to record and evaluate job and production status data. This data is available in the pressroom and other manufacturing areas and can be accessed and analysed via the PECOM interface. This gives you immediate information on press occupancy or production times, for instance. The result is clear cost information and an easier way to check economy and efficiency.

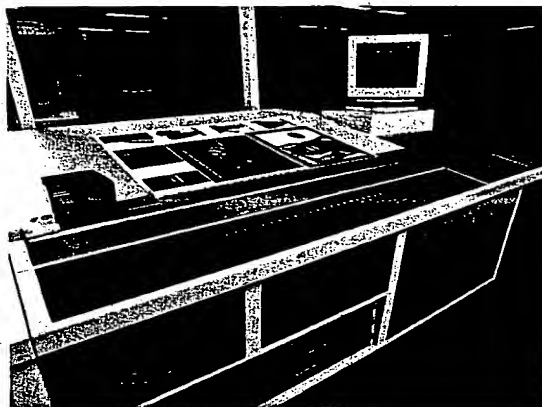
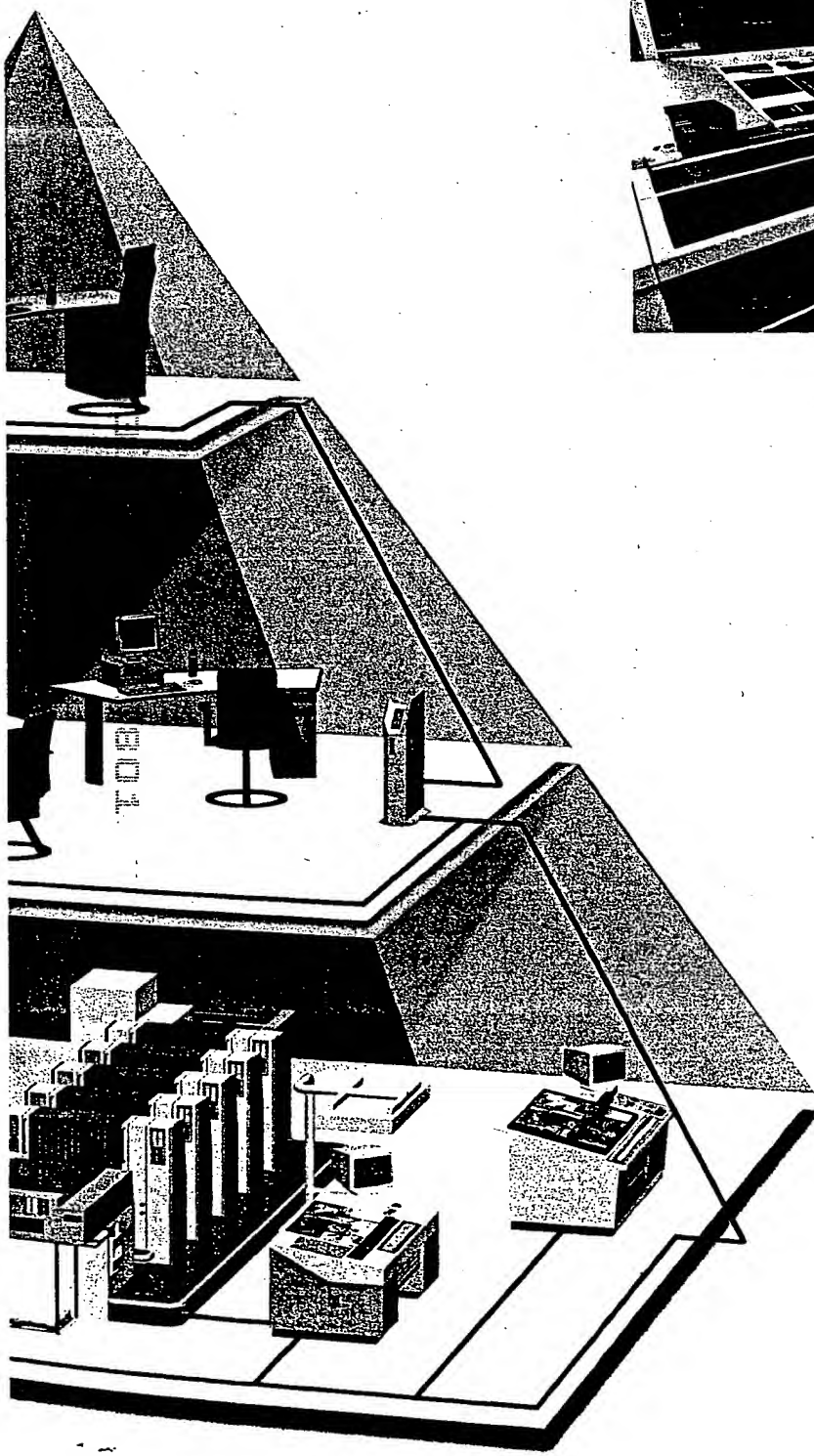


nical order preparation at the TPP station. The top level - Process Electronic Management - is the interface to the administrative area. This is a standardized, open interface that enables management to use appropriate industry software to evaluate information on print production.

### Communication supports standardized production

Data needs to be generated and recorded only once and is then available for use at all levels. This not only saves double handling but is also a prerequisite for standardizing the procedures in your manufacturing, an essential step for





PEC level:  
central press operation  
from the PECOM Press Center



PEO level:  
central job preparation  
at the TPP station

### Reduce makeready time with the TPP station

The TPP station enables you to carry out printing press-specific job preparation for several console-equipped presses from one central location. The TPP station provides electronic „job envelopes“ that contain all necessary information for the job concerned, including presetting data. The database of the TPP station provides

central storage of up to 5,000 jobs that can be called up within seconds. Data feedback from the press to the TPP station makes it possible to check the actual production stage of a job at any given time.

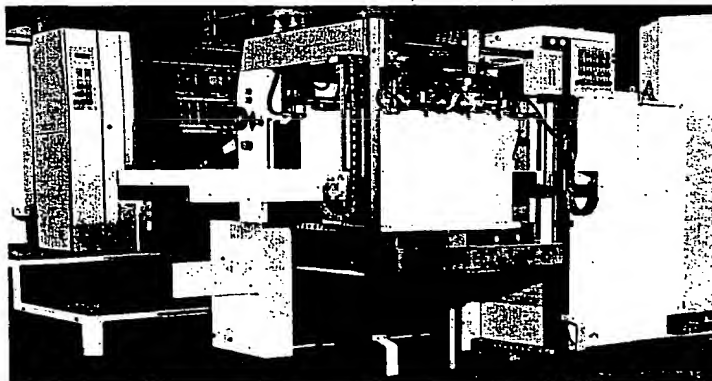
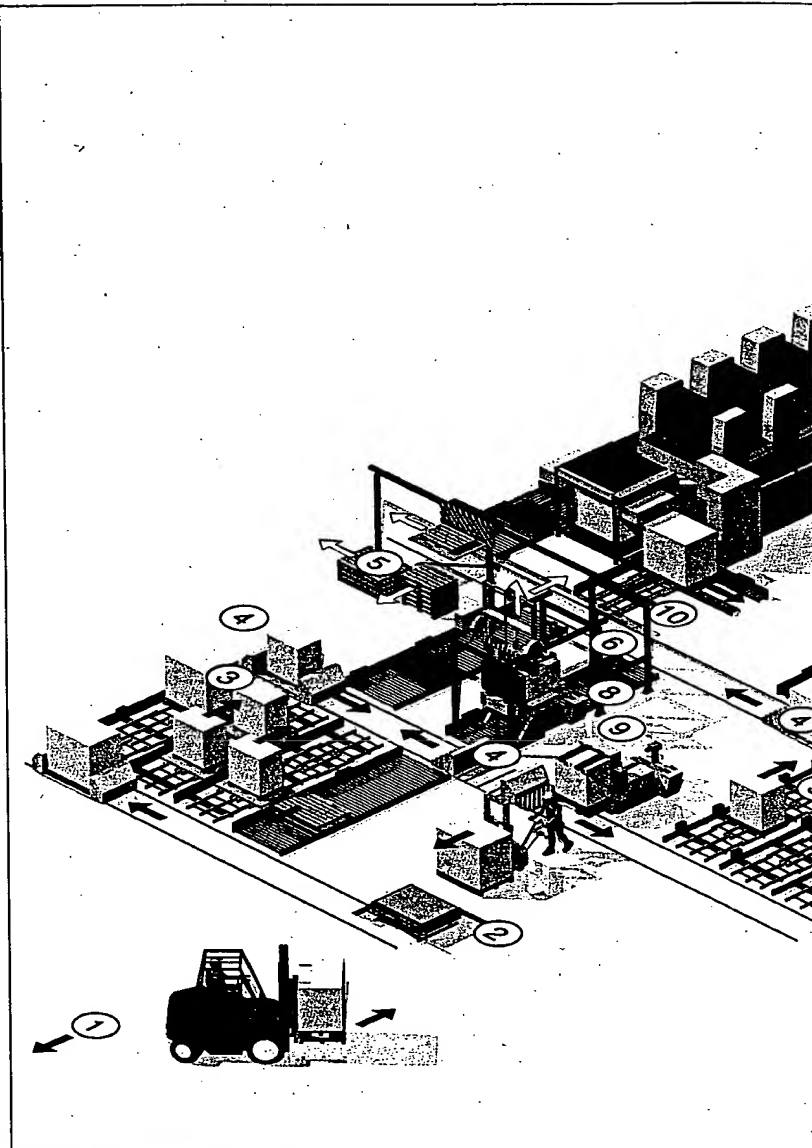
## Materials handling logistics and uninterrupted production

**Interruptions to production - manual pile changes for instance - have a very negative effect on your production results. The non-stop systems available for the Roland 700 ensure continuous production, even at top speed. The AUPASYS fully-automated pallet transport system opens up a new dimension in productivity: industrial-scale materials handling logistics.**

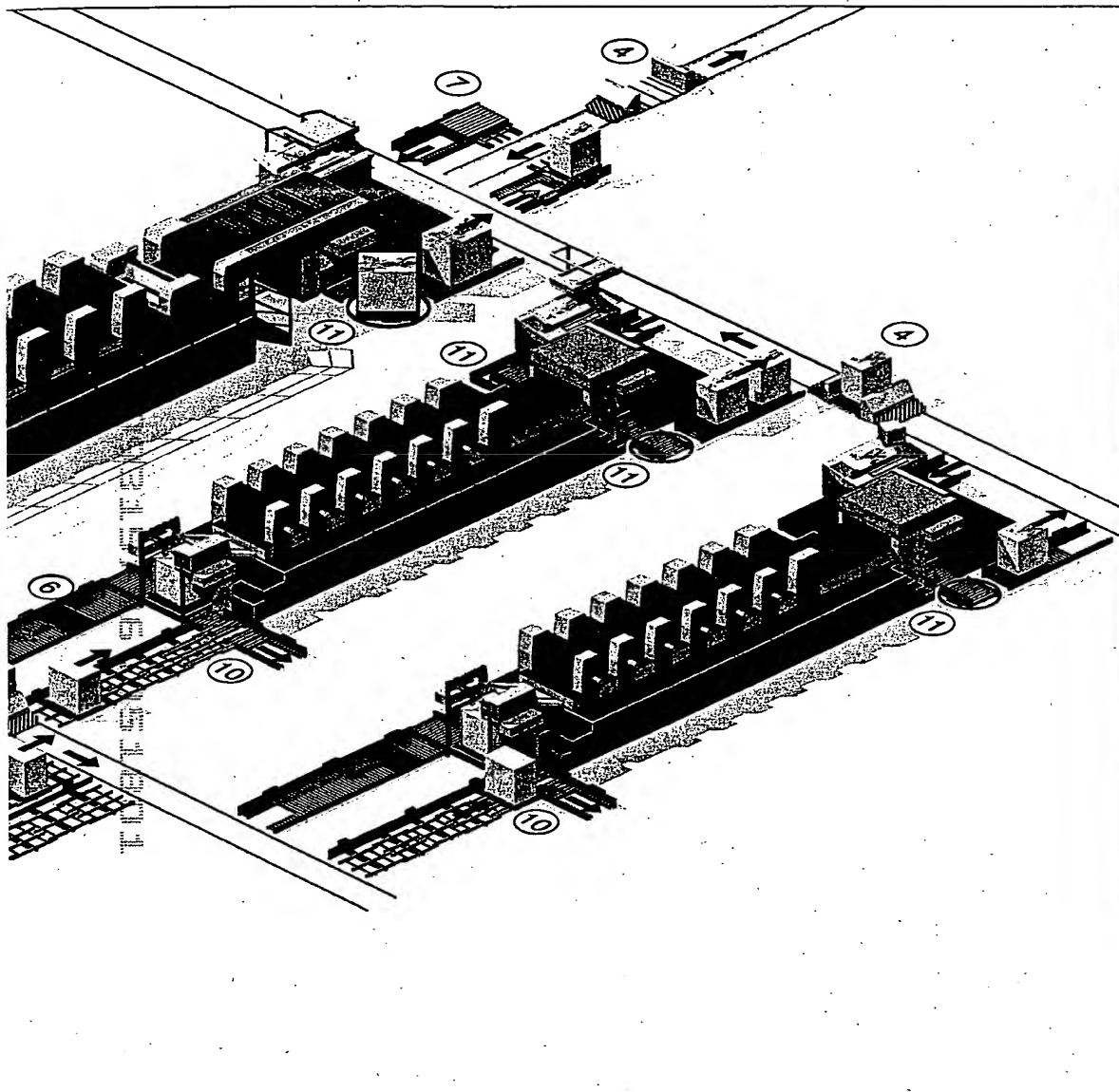
In many printing plants today, printed and unprinted piles are still being moved around in a very labour-intensive manner. The means are available to greatly improve efficiency in materials handling - AUPASYS, the materials handling and logistics system from MAN Roland. Depending on the space available in the plant, we can offer AUPASYS as a twostage, expandable system: Stage 1 provides fully automated pile changing for the feeder and a new intermediate piling device for the delivery. Stage 2 provides a complete pallet transport system that connects the printing and finishing areas to the raw materials store and intermediate storage areas.

### AUPASYS increases productivity even in stage One

The more often piles need to be changed, the more important automated functions become. AUPASYS provides you with fully-automated pile changes - NONSTOP - at full press speed. This speeds up job processing - especially in carton printing. Freed from the hectic activity associated with loading and unloading piles, your operators can concentrate on print quality. This increases productivity in two ways: your production is faster and your reject sheets are fewer.



Non-stop pile changing at the feeder



## AUPASYS as a complete materials handling system

Stage Two provides complete and automatic material transport within the printing plant for even greater handling efficiency. This system automates material transport from the paper store to the press and from there to the finishing area. Pallets can be accessed according to size and press. Pile turners integrated in the system ensure that the piles are perfectly prepared. The empty pallets are transported back to the pile turners in an automated, closed-loop operation.

### Planning and preparation

An AUPASYS installation – especially Stage Two – requires intensive planning. We and our sales and service partner will assist you with a detailed analysis of your specific circumstances and needs and provide you with the necessary guidance to ensure that you receive maximum benefit from your materials logistics system.

- |   |                        |  |
|---|------------------------|--|
| ① Raw materials store                   | ⑤ Transport pallet     | ⑨ Pile turner                              |
| ② Hoist station with intermediate plate | ⑥ System pallet        | ⑩ Chain system for roller conveyor corners |
| ③ Storage areas                         | ⑦ Empty pallet         | ⑪ Turning platform                         |
| ④ Shuttle Car                           | ⑧ Pallet changing unit |  |

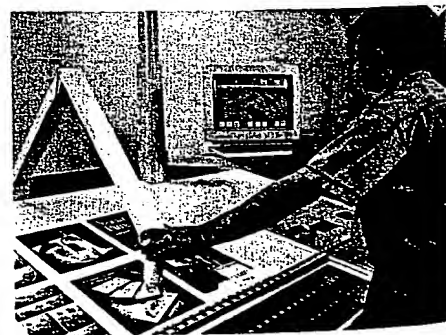
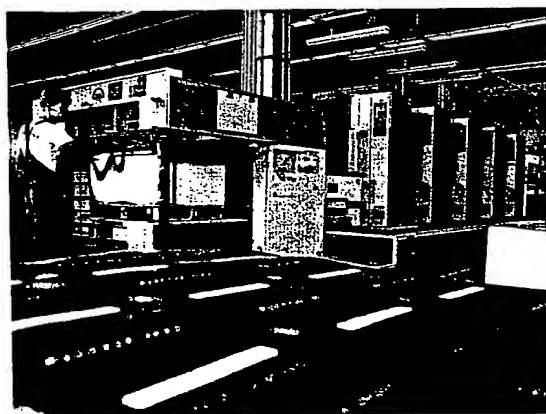
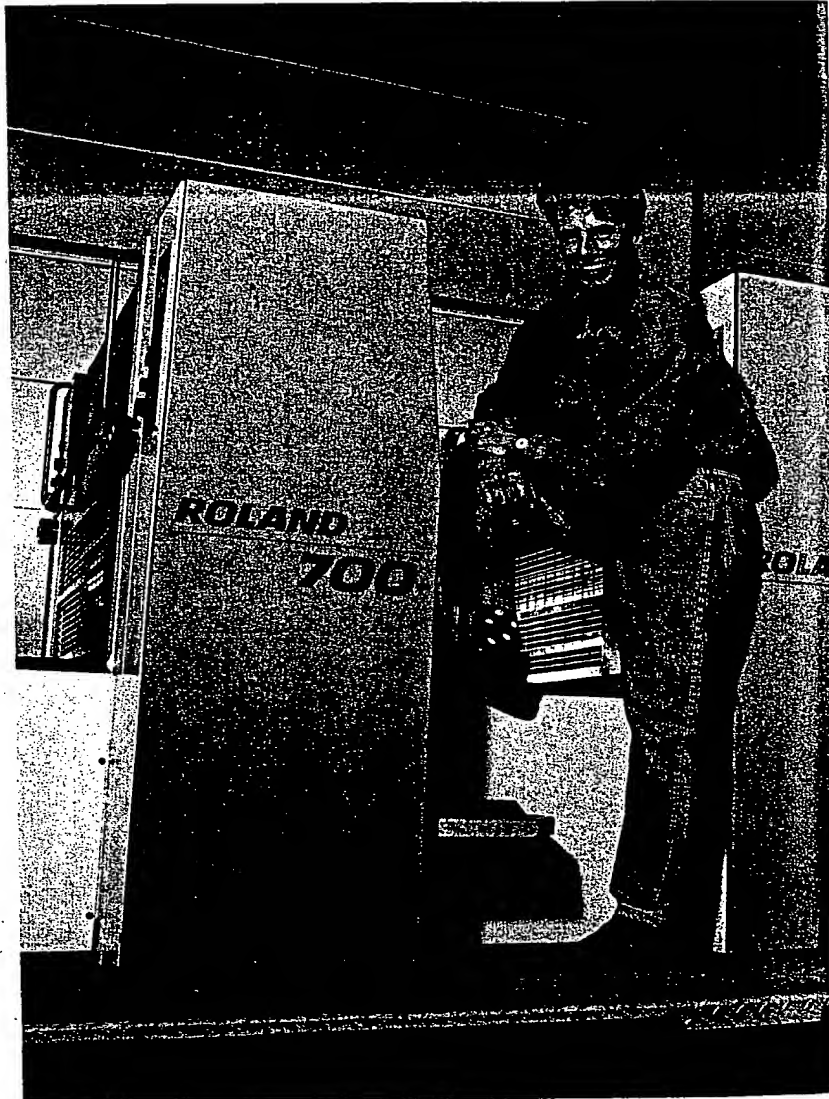
## A pleasant working environment increases productivity

**What qualities do you expect from your press to make it attractive as a workplace? Purposeful design? Good ergonomics? Safety and simple operation? As you know, productivity is strongly influenced by these factors. With a Roland 700, you are providing your operating staff with a press that conforms to all the demands placed on a modern production facility.**

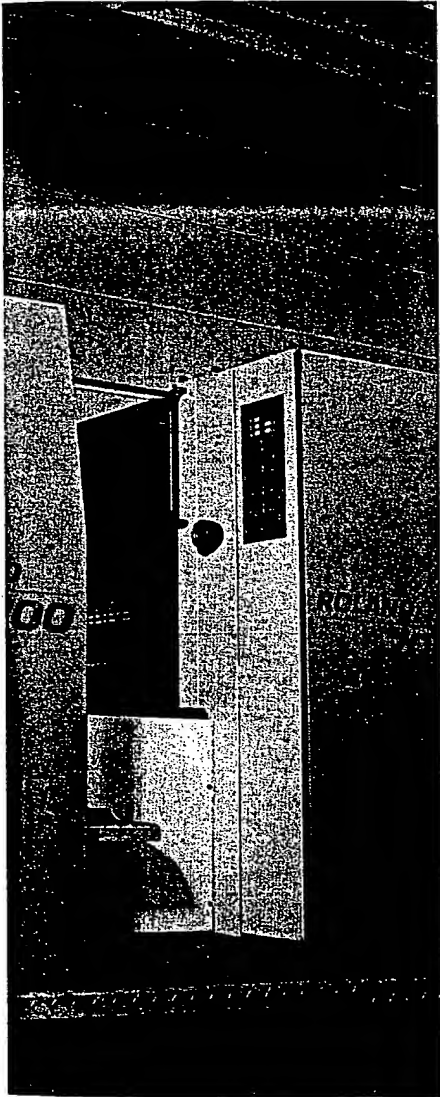
Ergonomics is a big word that sometimes covers small details. As an example, the operating controls on the Roland 700 are positioned to ensure ease of operation for both right and left-handed operators. But the ergonomics of the Roland 700 goes way beyond detail: the entire press is designed to minimize physical effort and thus maximise efficiency. As an example, 63 cm space between the printing units is considerably more than that offered by comparable presses. Printers enjoy working on the Roland 700 and this increases productivity.

### The PECOM Press Center speaks your language

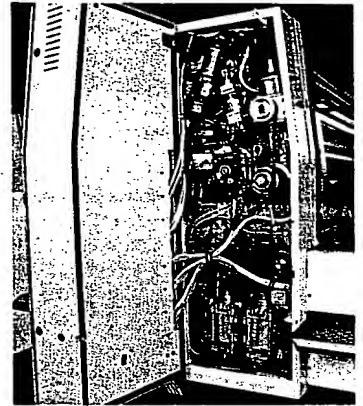
Communication with the PECOM Press Center must be easy to understand. For this reason, many languages are available including Japanese for instance. Help texts are there to assist whenever you need any explanation of the console functions.



The Roland 700:  
the benchmark for easy  
and reliable operation



The side covers are easily swung open to provide good access to the electronics and mechanics



### **The highest degree of operator safety**

Whereas in earlier times manual tasks such as plate changing or hickey removal carried a high risk of accidents, the automation of such tasks on the Roland 700 has removed this danger. The safety systems go further than the regulations demand. And it goes without saying that the Roland 700 has the German GS seal (safety approved) and conforms to the new safety standards of the European Union.

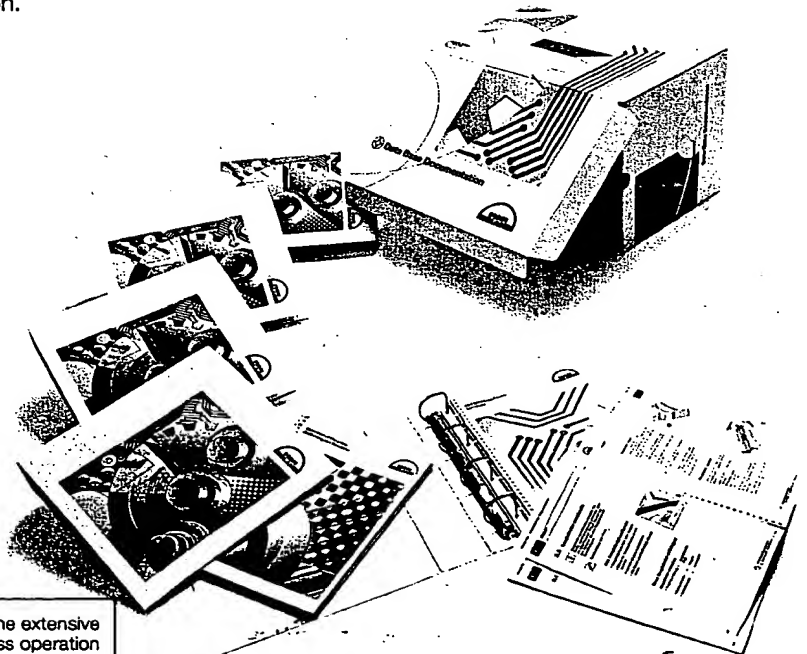
### **Well designed operating manuals for easy understanding**

A good press must have a good operating manual. The Roland 700 operating manual provides the printer with all the information he needs, logically arranged and easy to understand. New staff can quickly learn to operate the Roland 700.

### **Shorter maintenance times**

Press maintenance is essential to protect your investment. But good and thorough maintenance need not take a lot of time. Central lubrication and central oil changing for all units increases operational reliability and also productivity.

Central press control provides reliability and reduces operator tasks



Clearly laid out: the extensive documentation for press operation and maintenance



## **All over the world - partners in printing**

**In all countries and in every region, no matter how remote: wherever you may be printing, you will find an MAN Roland sales and service partner. We will not only provide guidance in investment decisions but also provide you with full service in all aspects of printing.**

A dense network of well-qualified sales and service partners in every part of the world can only be created and supported by a strong organization - such as MAN Roland.

Our partners are there to provide you with information and guidance to assist you with your investment decision. Which would be the best press for your specific job structure? How should the press be equipped? What are the market developments and trends? These are the type of questions that they can answer for you in full detail. You can find out how to contact our sales and service partner for your region by calling the following numbers:

Tel: +49 69 83 05-0

Fax: +49 69 83 05-14 40

### **First look, then decide**

A demonstration makes the decision easier. Apart from guidance in the form of discussions, we can also offer you live demonstrations in our Graphic Center in Mühlheim, close to Frankfurt. This allows you to judge for yourself the production possibilities of the Roland 700. We can also show you here state-of-the-art developments in printing.

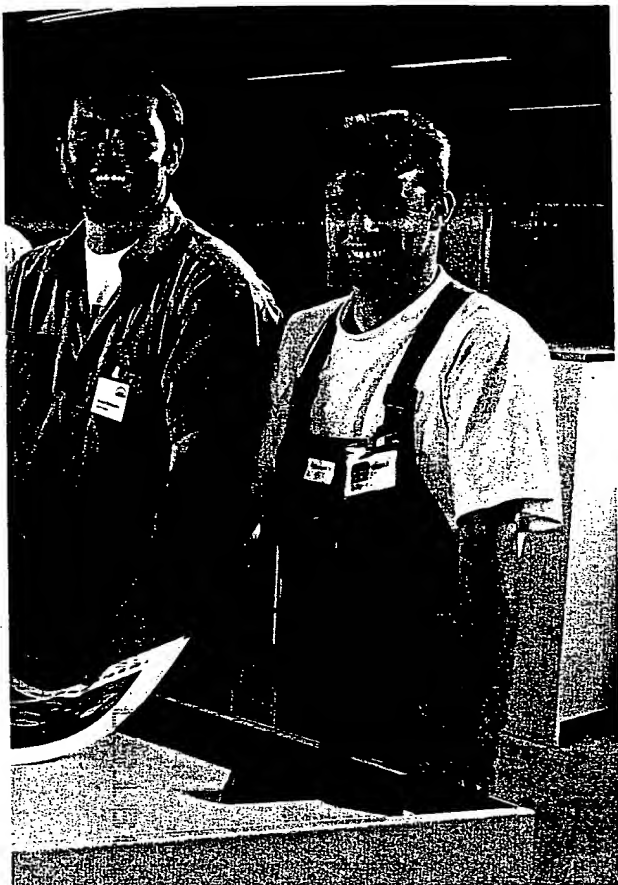


Printers' training courses in the Offenbach Graphic Center



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### Training on the Roland 700

Guidance in the investment decision is important but the services we offer go well beyond that. All of our international partners provide well-qualified training for your printers. And we also run printers' training courses in our Graphic Center that provide intensive, practical training in press operation. Depending on the extent of training needed, these courses last from three days up to two weeks. This ensures that you can take full advantage of the opportunities that modern press technology offers without delay.

### Good after-sales service vital for customer satisfaction

We are very much aware of this and are always ready to assist you. Should a breakdown occur, despite all safeguards and checks in manufacturing, our swift service response ensures that this does not mean a serious loss of production. Any press malfunction is detected by the diagnostic system in the Roland 700 and the system indicates in clear text at the PECOM Press Center where the error is located. This information can be conveyed to your sales and service partner who will assist immediately with a remote diagnosis or send a technician to you. All of our partners hold spare parts in stock to ensure these are available to you without delay. Supply of spare parts worldwide is further supported by a fast and efficient service from our headquarters in Offenbach.

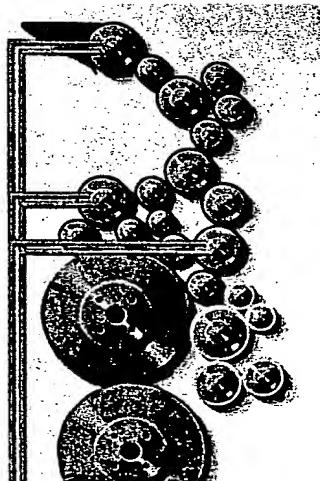


Print demonstrations (right) or training: the Graphic Center team (below) looks forward to your visit



## Synergies - environment protection and economy

**Synergy means the working together of two or more factors to produce an effect greater than the sum of their individual effects. An example of this is the result of environment-protecting measures allied with cost savings as offered by the Roland 700. It doesn't matter whether it is less waste paper, less solvents or exact dosage of inks and coatings: what is environment-compatible is always also economical.**



Inking unit temperature control: an important factor for waterless offset

### Washing methods - a contribution to environment protection

Chemical cleaning agents harm the environment and are expensive. The new brush-type washing device used on the Roland 700 uses less than 0.1 litre of washing solution per printing unit per washing cycle. This is not only a benefit for

man and nature but it also saves costs. Even greater cost savings are provided by the recycling unit which can clean used solutions with a recovery rate of 97 per cent.

The washing process does not cause any spray mist, which means you can also use vegetable oil-based washing agents or agents with a higher flash-point than normal without any problems.

And more good news for the environment: the washing brushes have a long useful life of around two years. When they are worn, they are not simply thrown away - the core can be fitted with a new brush covering.

### Reduce fountain solution additives

The use of isopropyl alcohol as a fountain solution additive is coming under increasingly critical scrutiny because it is hazardous to health and the environment. The fountain solution cooling and dosage units of the Roland 700 enable alcohol levels to be reduced by around 70% compared to levels common previously.

Inking unit temperature control on the Roland 700 stabilizes the temperature in the printing units. This not only reduces fountain solution consumption but it also provides ideal conditions for waterless offset printing - an extremely environment-compatible alternative.

### Furthermore...

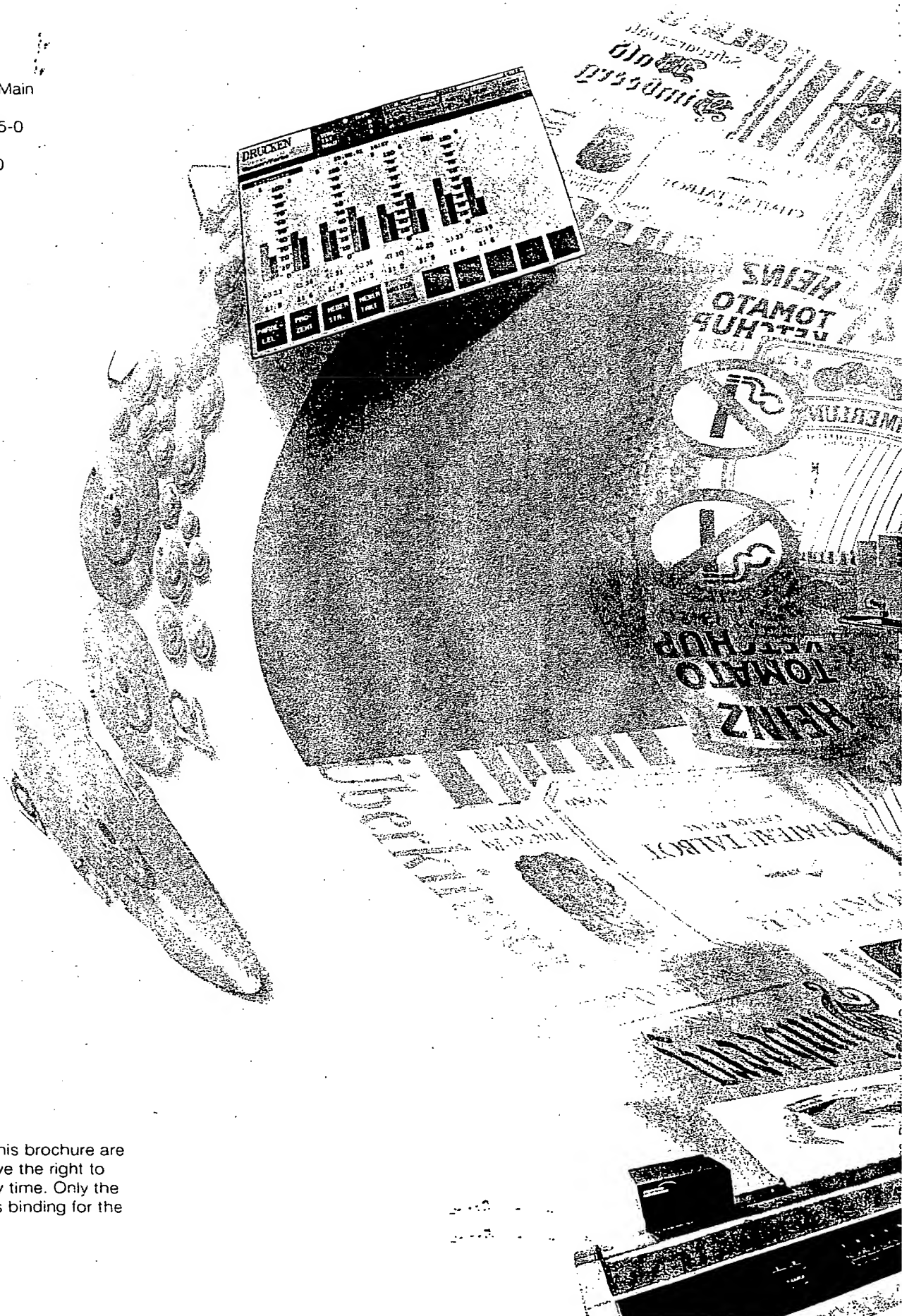
...we are very environment conscious in our manufacturing and work according to very strict rules in this regard - for the benefit of all of us.



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09345796-051801



The details quoted in this brochure are non-binding. We reserve the right to make alterations at any time. Only the confirmation of order is binding for the press supplied.

# ROLAND 700 convertible perfecting press

Model	Sheet size (mm): max. (2)	min.	Image area (mm): max. (3)	Pile height (mm): Feeder	Delivery	Press dimensions (mm): Length	Width	Height	Speed (4) (sheets per hour)	Number of printing units
R 707 3B LV	740x1040	340x480	715x1020 (1)	1180	1080	15238	3450	2140	15 000	7
R 708 3B LV	740x1040	340x480	715x1020 (1)	1180	1080	16418	3450	2140	15 000	8
R 702 3B	720x1040	340x480	700x1020	1180	1080	7213	3450	2140	11 000	2
R 703 3B	720x1040	340x480	700x1020	1180	1080	8393	3450	2140	11 000	3
R 704 3B	720x1040	340x480	700x1020	1180	1080	9573	3450	2140	11 000	4
R 705 3B	720x1040	340x480	700x1020	1180	1080	10753	3450	2140	11 000	5
R 706 3B	720x1040	340x480	700x1020	1180	1080	11933	3450	2140	11 000	6
R 707 3B	720x1040	340x480	700x1020	1180	1080	13113	3450	2140	11 000	7
R 708 3B	720x1040	340x480	700x1020	1180	1080	14293	3450	2140	11 000	8

- (1) Maximum image area of 730x1030 mm available on request
- (2) Maximum sheet size in straight printing is 740x1040 mm
- (3) Maximum image area in straight printing is 715x1020 mm
- (4) The maximum speed in straight printing is 15,000 sheets per hour
- The machine dimensions given above apply to the standard versions.
- Please refer to the respective press installation plans for binding dimensions.

# Technical data (mm)



## ROLAND 700

Model	Sheet size (mm):		Image area (mm):		Pile height (mm):		Press dimensions (mm):			Speed	Number of
	max.	min.	max.		Feeder	Delivery	Length	Width	Height	(sheets per hour)	printing units
<b>R 702 3B</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	7213	3450	2140	15.000	2
<b>R 703 3B</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	8393	3450	2140	15.000	3
<b>R 704 3B</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	9573	3450	2140	15.000	4
<b>R 705 3B</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	10753	3450	2140	15.000	5
<b>R 706 3B</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	11933	3450	2140	15.000	6
<b>R 707 3B</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	13113	3450	2140	15.000	7
<b>R 708 3B</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	14293	3450	2140	15.000	8

## ROLAND 700 with coating module and extended delivery

Model	Sheet size (mm):		Image area (mm):		Pile height (mm):		Press dimensions (mm):			Speed	Number of
	max.	min.	max.		Feeder	Delivery	Length	Width	Height	(sheets per hour)	printing units
<b>R 702 3B LV</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	9338	3450	2140	15.000	2
<b>R 703 3B LV</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	10518	3450	2140	15.000	3
<b>R 704 3B LV</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	11698	3450	2140	15.000	4
<b>R 705 3B LV</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	12878	3450	2140	15.000	5
<b>R 706 3B LV</b>	740x1040	340x480	715x1020 <sup>(1)</sup>		1180	1080	14058	3450	2140	15.000	6



APL fully-automated plate changing

Automated register control (video magnifier)

Inline register control

CCI inking regulation

Multi-CCI inking regulation

Multi-CCI-2D inking regulation

Inking unit temperature control

LCS (Low Coverage Stabilisation)

One or two perfecting stations

Automatic impression cylinder washing device

Coating module

Coating module with anilox roller and chamber-type doctor blade

PECOM networking

● standard  
○ optional

This table contains a selection of important items  
of equipment. Further information available on

request. We reserve the right to make  
technical changes without prior notice.

status 5/95

## Press equipment



	R 702	R 703	R 704	R 705	R 706	R 707	R 708
Automatic sheet size setting	●	●	●	●	●	●	●
Automatic stock thickness adjustment	●	●	●	●	●	●	●
Circumferential, lateral and diagonal register control	●	●	●	●	●	●	●
RCI inking control	●	●	●	●	●	●	●
Automatic inking unit separation	●	●	●	●	●	●	●
Remote setting of ink oscillation timing	●	●	●	●	●	●	●
Oscillation setting of the forme inking rollers	●	●	●	●	●	●	●
Roland Deltamatic dampener	●	●	●	●	●	●	●
Automatic inking roller washing device	●	●	●	●	●	●	●
Automatic blanket washing device	●	●	●	●	●	●	●
Non-stop device for feeder and delivery	●	●	●	●	●	●	●
Special surfaces for plate, blanket and impression cylinders	●	●	●	●	●	●	●
Printing with or without bearer contact	●	●	●	●	●	●	●
Diagnostic system	●	●	●	●	●	●	●
Data transmission via fibre optics	●	●	●	●	●	●	●
PPL Automated plate changing	○	○	○	○	○	○	○



## Technical data (inch)



### ROLAND 700

Model	Sheet size (inch): max.	min.	Image area (inch): max.	Pile height (inch): Feeder	Delivery	Press dimensions (inch): Length	Width	Height	Speed (sheets per hour)	Number of printing units
<b>R 702 3B</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	23'7.99	11'3.82	84.25	15,000	2
<b>R 703 3B</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	27'6.46	11'3.82	84.25	15,000	3
<b>R 704 3B</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	31'4.88	11'3.82	84.25	15,000	4
<b>R 705 3B</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	35'3.35	11'3.82	84.25	15,000	5
<b>R 706 3B</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	39'1.81	11'3.82	84.25	15,000	6
<b>R 707 3B</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	43'0.28	11'3.82	84.25	15,000	7
<b>R 708 3B</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	46'10.71	11'3.82	84.25	15,000	8

### ROLAND 700 with coating module and extended delivery

Model	Sheet size (inch): max.	min.	Image area (inch): max.	Pile height (inch): Feeder	Delivery	Press dimensions (inch): Length	Width	Height	Speed (sheets per hour)	Number of printing units
<b>R 702 3B LV</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	30'7.64	11'3.82	84.25	15,000	2
<b>R 703 3B LV</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	34'6.10	11'3.82	84.25	15,000	3
<b>R 704 3B LV</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	38'4.57	11'3.82	84.25	15,000	4
<b>R 705 3B LV</b>	29.13 x 40.94	13.39 x 18.90	28.15 x 40.16 <sup>(1)</sup>	40.46	42.52	42'3.00	11'3.82	84.25	15,000	5

**R 707 3B LV**

29.13 x 40.94 13.39 x 18.90 28.15 x 40.16 40.46 42.52 49.11.93 11.3.82 84.25 15,000 7

**R 708 3B LV**

29.13 x 40.94 13.39 x 18.90 28.15 x 40.16 40.46 42.52 53.10.38 11.3.82 84.25 15,000 8

# **ROLAND 700 convertible perfecting press**

Model	Sheet size (inch): max. (2)	min.	Image area (inch): max. (3)	Pile height (inch): Feeder	Delivery	Press dimensions (inch): Length	Width	Height	Speed <sup>(4)</sup> (sheets per hour)	Number of printing units
<b>R 702 3B</b>	28.35 x 40.94	13.39 x 18.90	27.56 x 40.16	40.46	42.52	23.7.99	11.3.82	84.25	11,000	2
<b>R 703 3B</b>	28.35 x 40.94	13.39 x 18.90	27.56 x 40.16	40.46	42.52	27.6.46	11.3.82	84.25	11,000	3
<b>R 704 3B</b>	28.35 x 40.94	13.39 x 18.90	27.56 x 40.16	40.46	42.52	31.4.88	11.3.82	84.25	11,000	4
<b>R 705 3B</b>	28.35 x 40.94	13.39 x 18.90	27.56 x 40.16	40.46	42.52	35.3.35	11.3.82	84.25	11,000	5
<b>R 706 3B</b>	28.35 x 40.94	13.39 x 18.90	27.56 x 40.16	40.46	42.52	39.1.81	11.3.82	84.25	11,000	6
<b>R 707 3B</b>	28.35 x 40.94	13.39 x 18.90	27.56 x 40.16	40.46	42.52	43.0.28	11.3.82	84.25	11,000	7
<b>R 708 3B</b>	28.35 x 40.94	13.39 x 18.90	27.56 x 40.16	40.46	42.52	46.10.71	11.3.82	84.25	11,000	8

(1) Maximum image area of 28.74 x 40.55 inches available on request

(2) Maximum sheet size in straight printing is 29.13 x 40.94 inches

(3) Maximum image area in straight printing is 28.15 x 40.16 inches

(4) The maximum speed in straight printing is 15,000 sheets per hour

The machine dimensions given above apply to the standard versions.

Please refer to the respective press installation plans for binding dimensions.

## Press equipment



	R 702	R 703	R 704	R 705	R 706	R 707	R 708
Automatic sheet size setting	●	●	●	●	●	●	●
Automatic stock thickness adjustment	●	●	●	●	●	●	●
Circumferential, lateral and diagonal register control	●	●	●	●	●	●	●
RCI inking control	●	●	●	●	●	●	●
Automatic inking unit separation	●	●	●	●	●	●	●
Remote setting of ink oscillation timing	●	●	●	●	●	●	●
Oscillation setting of the forme inking rollers	●	●	●	●	●	●	●
Roland Deltamatic dampener	●	●	●	●	●	●	●
Automatic inking roller washing device	●	●	●	●	●	●	●
Automatic blanket washing device	●	●	●	●	●	●	●
Non-stop device for feeder and delivery	●	●	●	●	●	●	●
Special surfaces for plate, blanket and impression cylinders	●	●	●	●	●	●	●
Printing with or without bearer contact	●	●	●	●	●	●	●
Diagnostic system	●	●	●	●	●	●	●
Data transmission via fibre optics	○	○	○	○	○	○	○
PPL Automated plate changing	○	○	○	○	○	○	○

APL fully-automated plate changing

Automated register control (video magnifier)

Inline register control

CCI inking regulation

Multi-CCI inking regulation

Multi-CCI-2D inking regulation

Inking unit temperature control

LCS (Low Coverage Stabilisation)

One or two perfecting stations

Automatic impression cylinder washing device

Coating module

Coating module with anilox roller and chamber-type doctor blade

PECOM networking

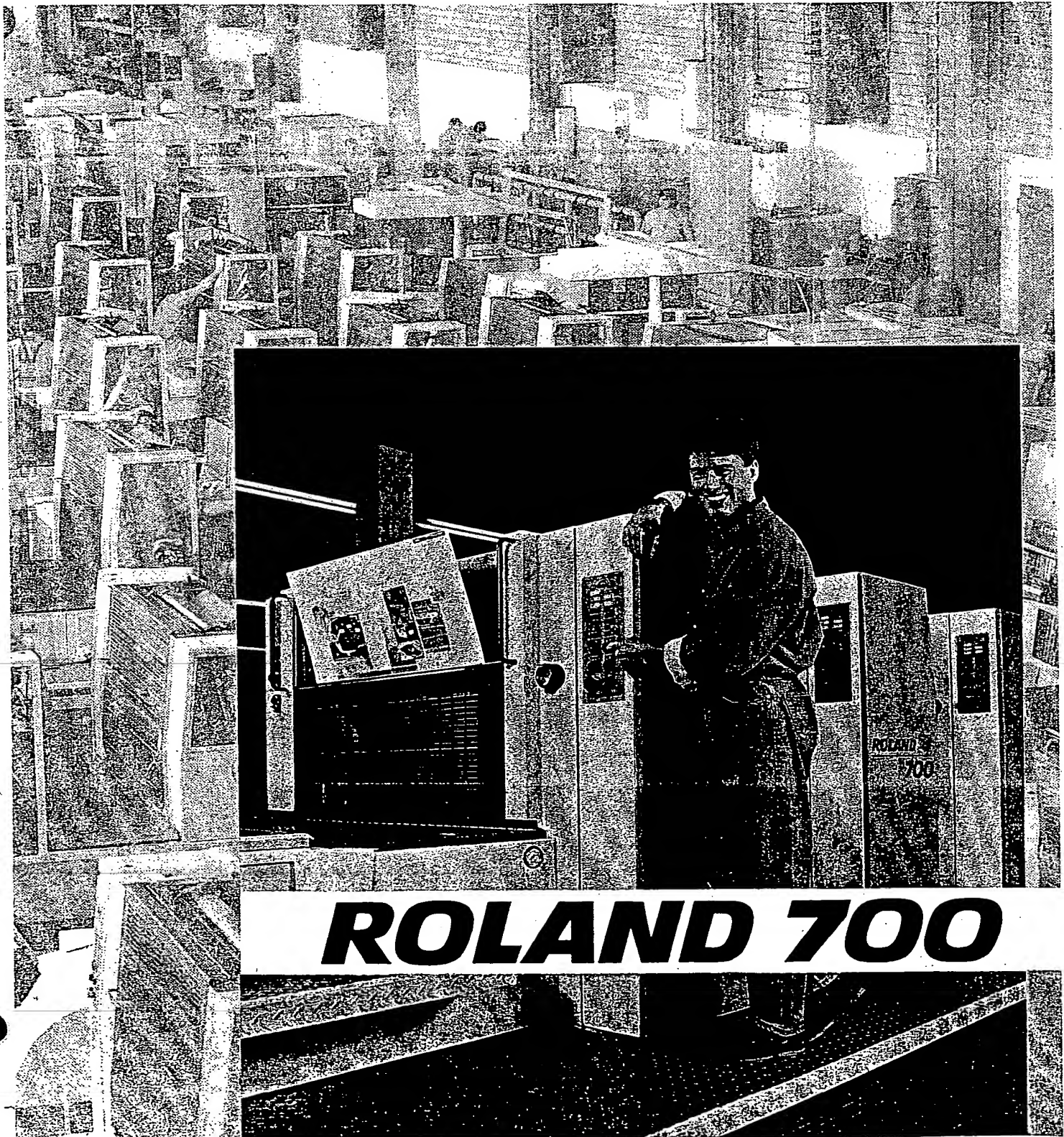
This table contains a selection of important items  
of equipment. Further information available on

request. We reserve the right to make  
technical changes without prior notice.

● standard  
○ optional

status 5/95

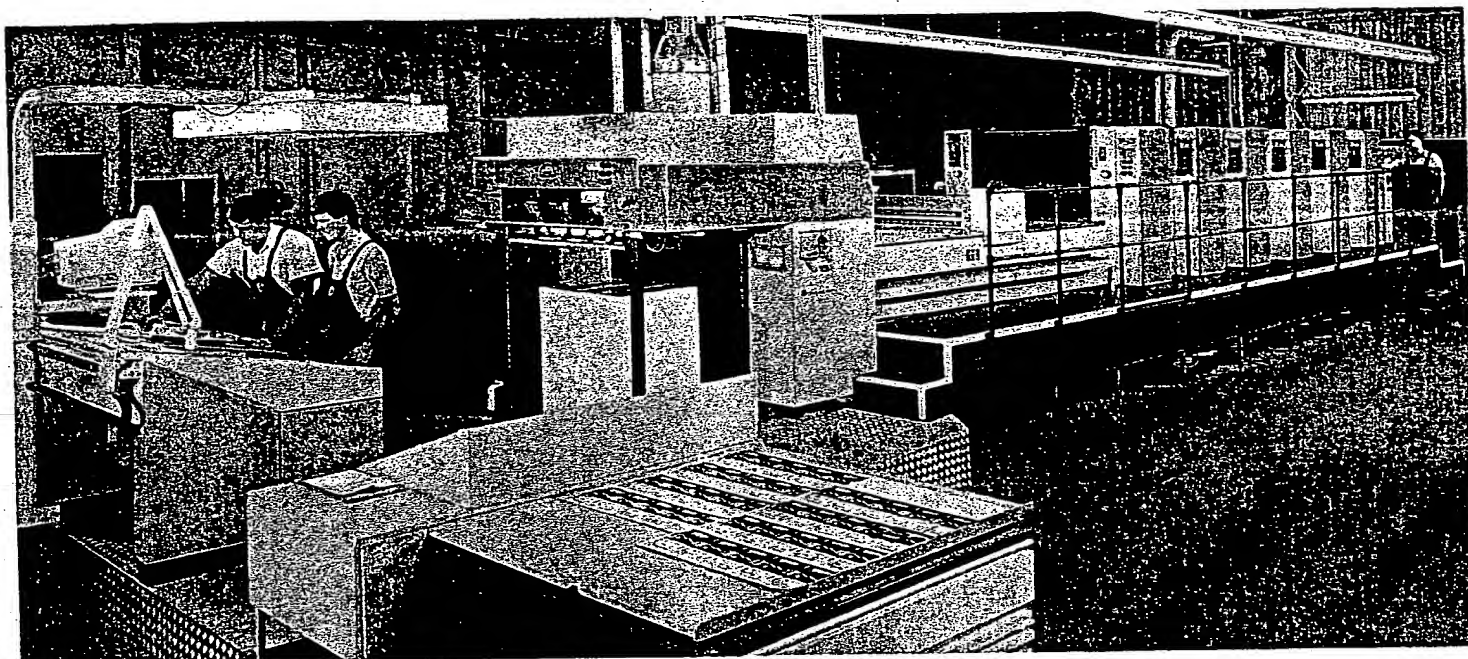
**Roland 700 –  
into the future of the medium format  
with a new dimension in performance**



***ROLAND 700***



# Roland 700 – into the future of the medium format with a new dimension in performance



## **A new performance dimension within a digitalised total concept**

To relieve the printer of routine work, not automation at any price but instead automation which brings advantages for the printer, the printing company and its customers – these were the objectives of MAN Roland in developing a new and trendsetting press technology.

The Roland 700, the new alternative in the medium size. The high degree of automation of this unit design press, combined with a maximum speed of 15,000 sheets per hour, ensures an extraordinarily high performance capability.

The Roland 700, like the Roland 600 D, is a part of an integrated digital concept: A technology which employs the advantages of automation and central operation of all major press functions from the PECOM Press Center, using digital signal transmission with fibre optics, to ensure high productivity, a high degree of production reliability and high quality.

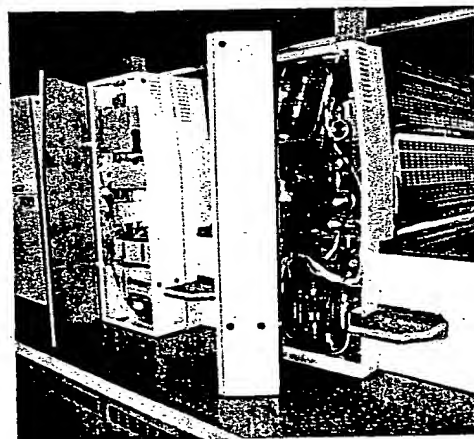
Beyond standardisation and automation, the technology of the Roland 700 allows the press to be linked into the PECOM process electronic concept which provides integration of the printing process into a system for high-volume production.

The Roland 700 symbolises the highest level of the technological philosophy of MAN Roland in the medium format. Designed to meet the demands of the printing plants of tomorrow, the Roland 700 stands out by virtue of consistently high performance as a fundamental part of an integratable, open system for economical and efficient high-volume production.

## **The PECOM Press Center for all machine functions – More time for quality even with higher productivity**

The operation of the Roland 700 takes place at the PECOM Press Center. These operations include sheet size settings, inking adjustments, inking regulation, register adjustments, dampening fluid feeding as well as the operation of inking roller and blanket washing systems, the powder spraying device and the dampening fluid conditioning unit.

The colour monitor replaces a multitude of display instruments, for example: running speed, inking and dampening unit settings, total counter, run counter and job preset.



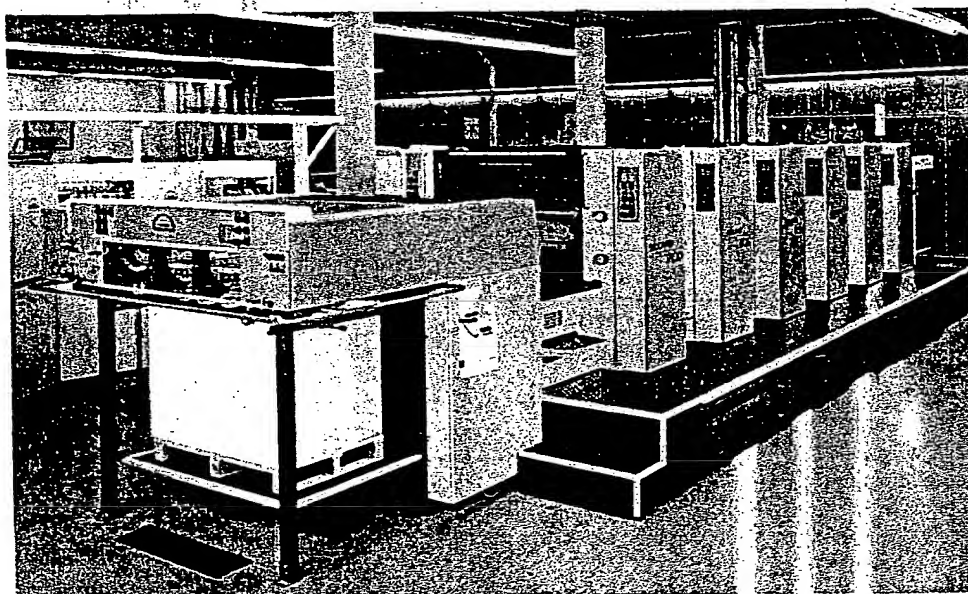
This form of display considerably increases production reliability. The simple operation is via function keys which quickly access the module to be adjusted and where the functions for that module are grouped. Selection and execution are quickly accomplished, the printer is in full control of his press from a central position and can concentrate fully on print quality.

Up to 5.000 jobs including presetting, measuring and regulating parameters can be stored in, and managed from, the PECOM Press Center. With repeat jobs this means that it is possible to call up the previous settings and have practically all the necessary data immediately available. Sheet size, impression setting, ink slides, vibrator setting, powder sprayer etc. are automatically set by keystroke.

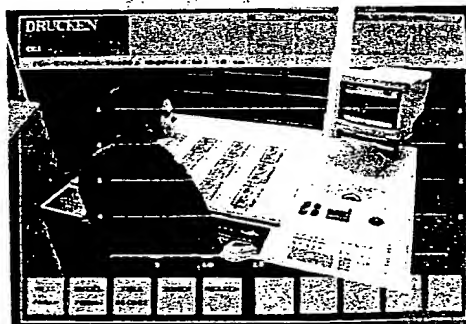
The pertinent control system is integrated directly in the sideframes of the printing units. As every control unit has its own computer, signal transmission paths are short. The information exchange unit to unit, and between units and the PECOM Press Center, is by means of fibre optics. Messages are in a clear text form. Help texts indicate possible error reasons (e.g. open guard) and suggest corrective action.



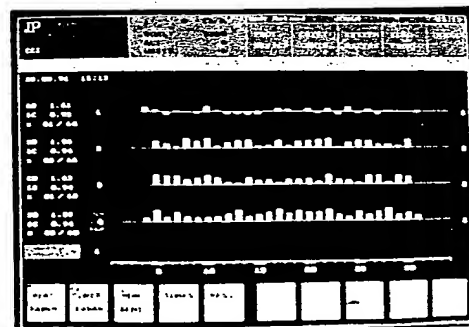
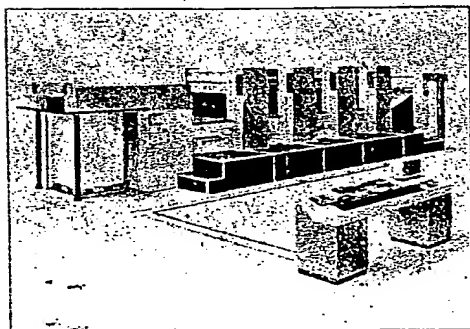
TPP-Station



Printing press



PECOM Press Center





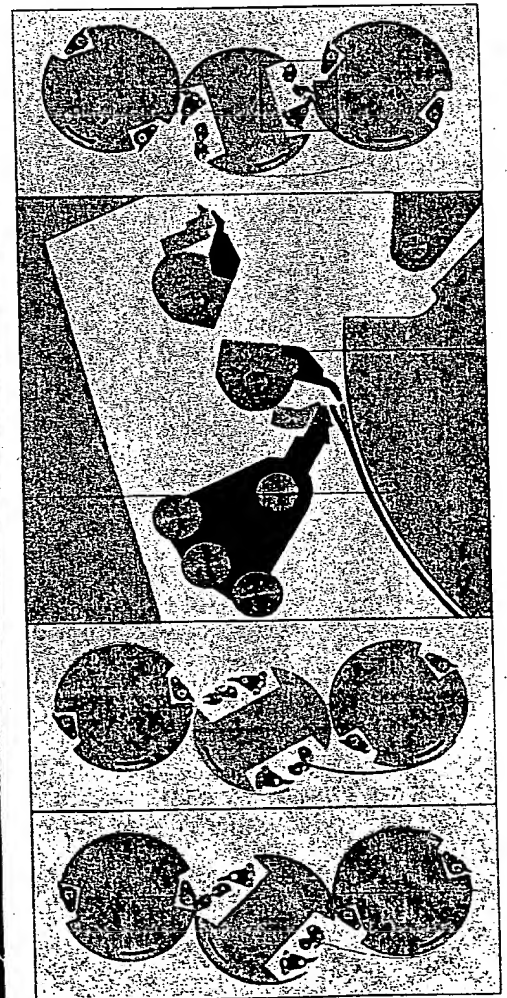
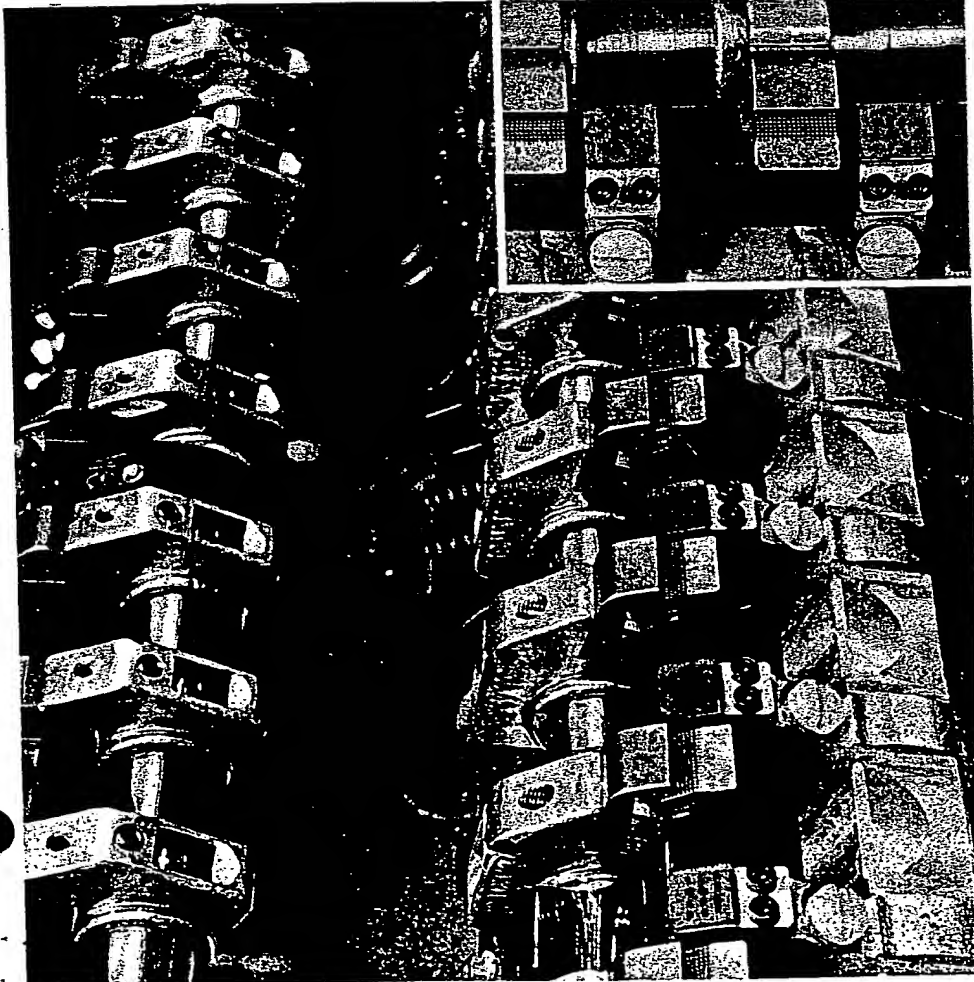
# Roland 700 – single cylinder perfecting for flexibility with high performance

The Roland 700 with perfecting unites the highest degree of automation with the advantages of printing both sides of the sheet in one pass. This concept permits the production mode to be changed in order to process the job in the most economical manner. This means flexibility in job planning for the printing plant which enables fast response to the requirements of the customer.

In accordance with the overall operational philosophy of the Roland 700, the change of production mode is made fully automatically from the PECOM Press Center, simply and safely, in less than one minute.

In the perfecting mode, suckers in the perfecting cylinder grasp the rear edge of the sheet in order to raise and tauten it for the transfer to the perfecting cylinder grippers (illustration 1). The sheet front edge is not released by the grippers in the preceding impression cylinder until it is firmly gripped at the rear edge by the perfecting cylinder grippers. Because the sheet is at all times held by a gripper system, reliable sheet transfer is ensured even at high speeds. In the next phase, the perfecting grippers transfer the sheet to the so-called straight printing grippers (illustration 2). What was the sheet rear edge becomes the new front edge as it is transferred to the impression cylinder of the next printing unit (illustration 3). A missing sheet detector is provided between the perfecting cylinder and the impression cylinder to safeguard production.

The flat angle of sheet travel enables trouble-free processing of stocks up to 0.4 mm thick at a maximum speed of 11,000 sheets per hour in the perfecting mode. The patented special surface structure of the impression and perfecting cylinders avoids adherence and smearing and ensures the highest print quality for perfected work.



# Roland 700 – innovative technology in unit design for the highest efficiency

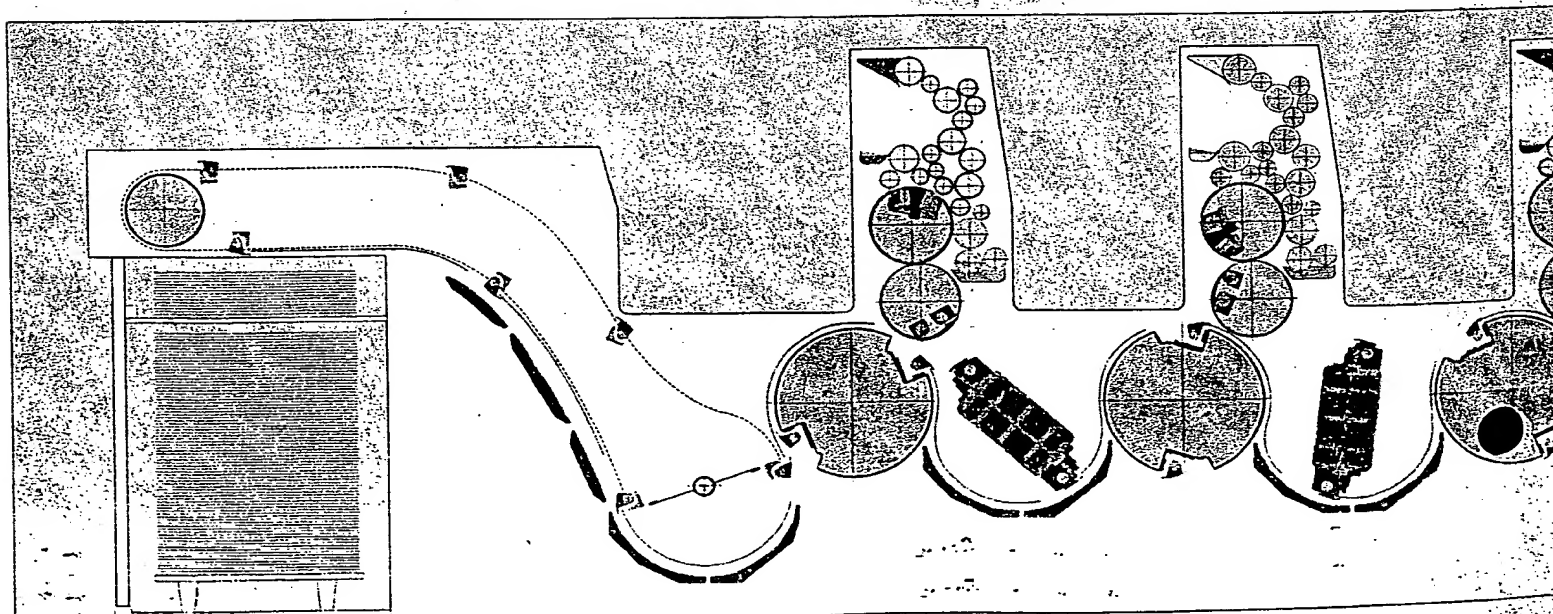
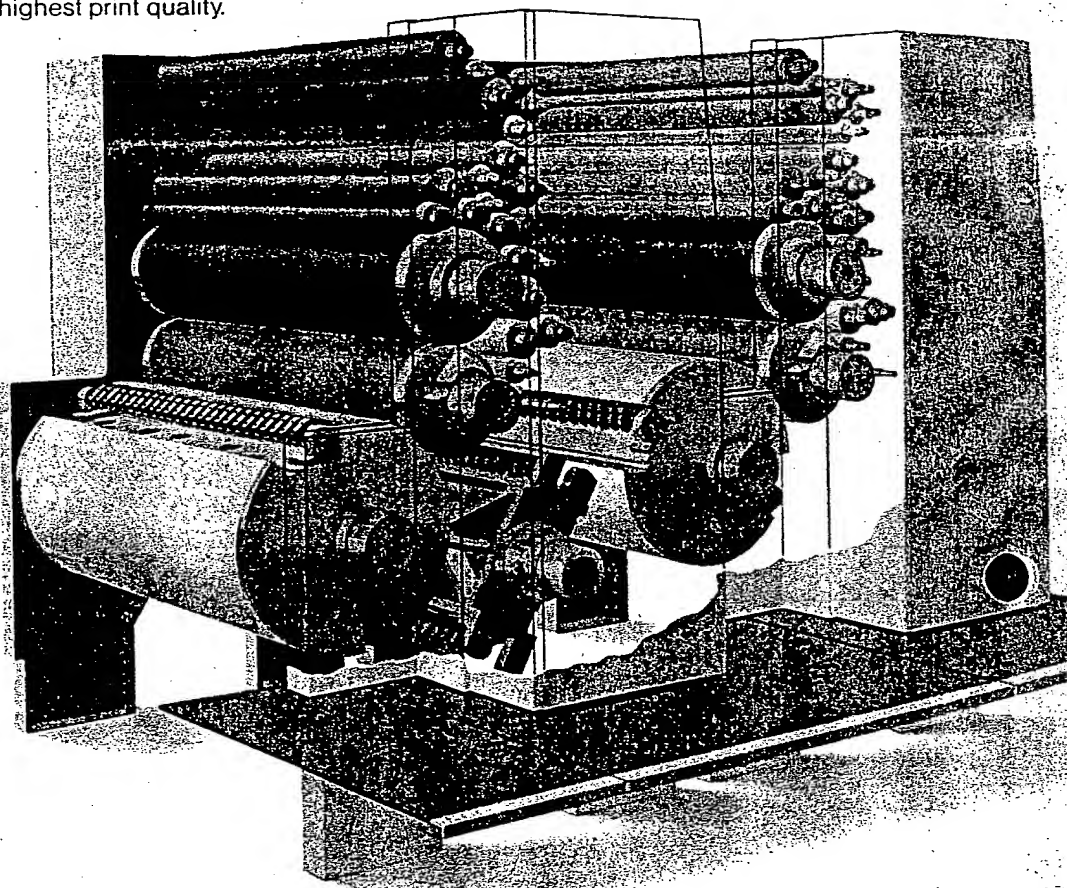
The Roland 700 is the new sheet-fed press in unit design with double diameter impression cylinders and the Transferter transfer system.

The size and the arrangement of the cylinders and the Transferter, combined with the slender design of the printing units, provide especially good accessibility and a high level of operator comfort.

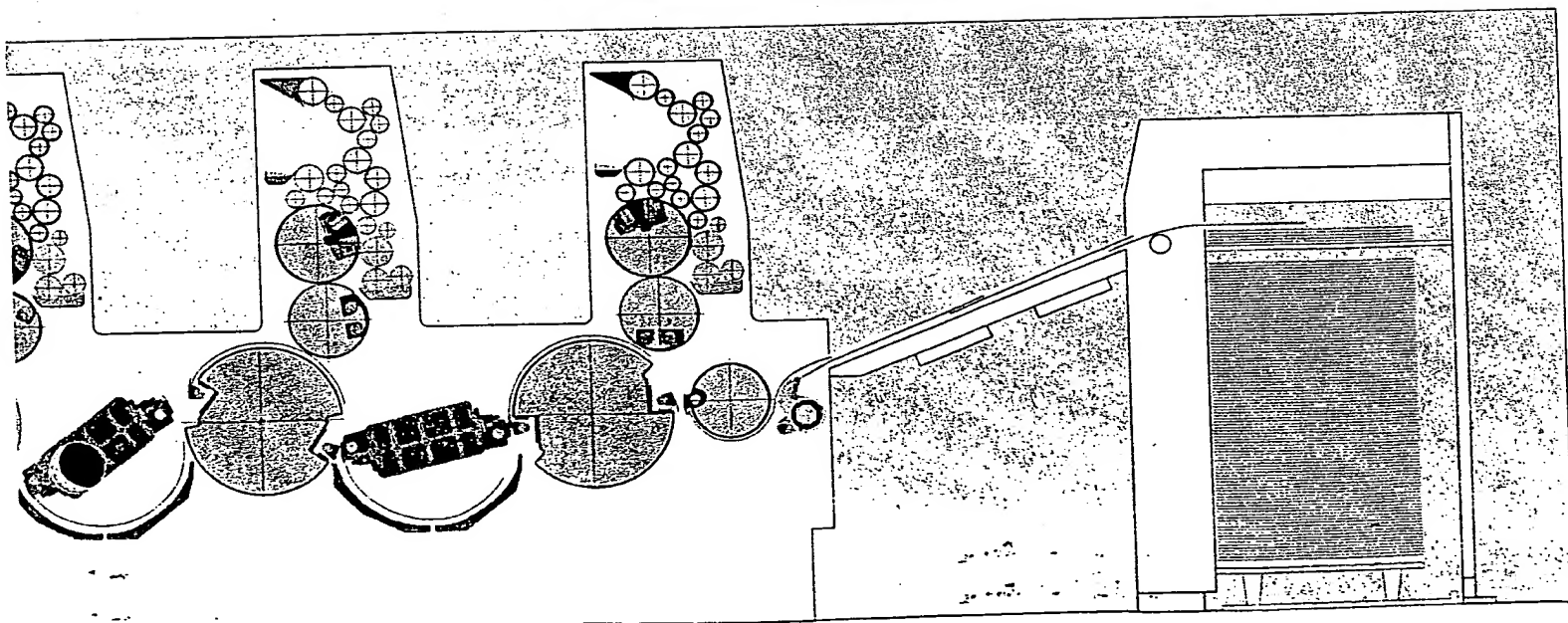
The Transferter concept does away with setting work on transfer cylinders and ensures high printing quality at production speeds of up to 15,000 sheets per hour. The design permits optimal sheet transport with minimal bending, thus giving a relatively flat travel path, and a minimum of sheet transfer points. This means perfect register and a minimum of sheet guiding elements, thus reducing the risk of marking. The sheet is fully printed before transfer commences. The Transferter concept makes a large contribution to the especially short makeready times of the Roland 700.

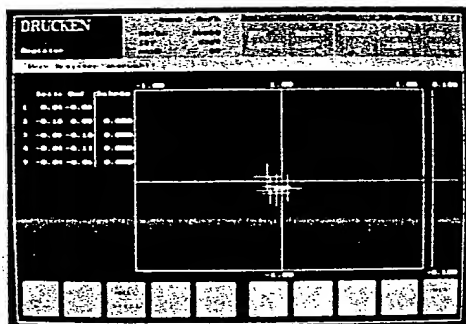
The new computer-optimised inking unit, along with the Roland Deltamatic dampener which permits either integrated or separated dampening, reacts extremely

quickly. This further reduces startup time and startup waste and provides the highest print quality.



FOR 50" 96/57560





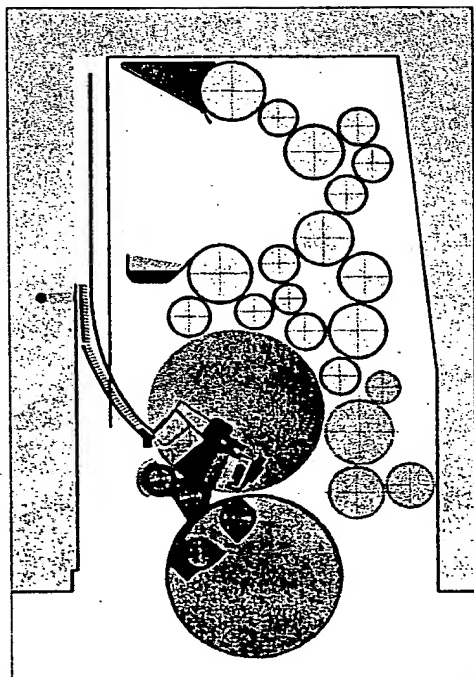
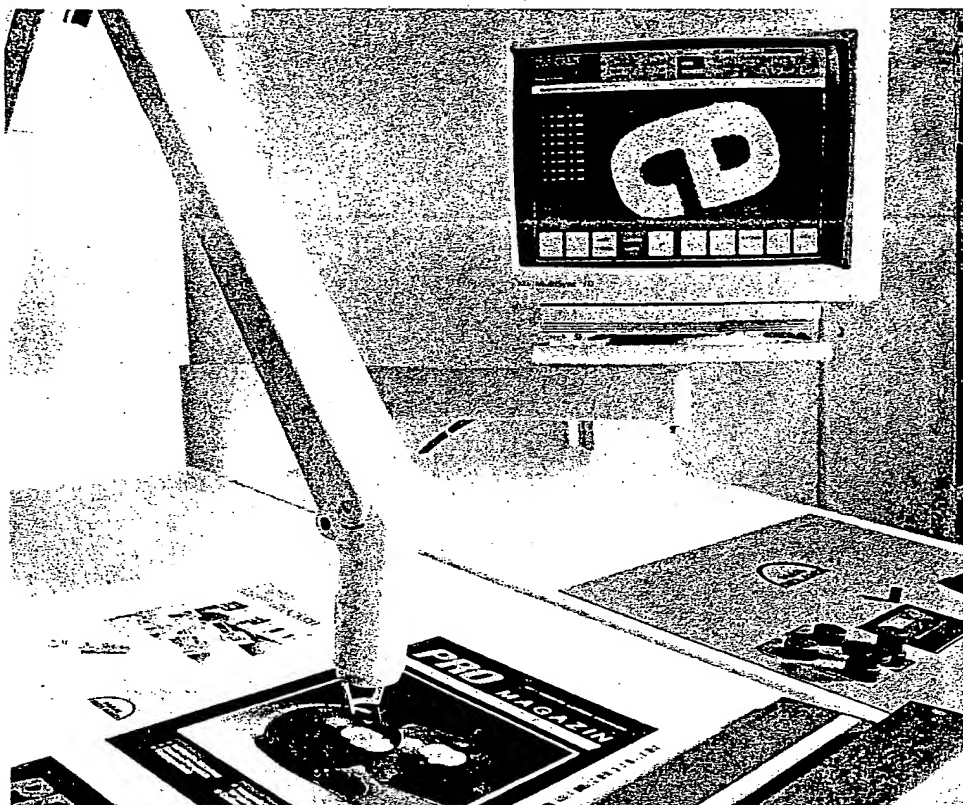
**RQM (Register and Quality Magnifier).**  
Register control and semi-automatic regulation

The register control is done from the PECOM Press Center. The printer can decide whether to make manual corrections via the remote register control or to correct at the touch of a key by using the RQM (optional equipment). The objective measurement of the RQM reduces the number of register corrections. The settings are always precise and make-ready times are reduced.

The fitting of the formes is also done much faster. There is no need for special register crosses. With RQM it is also possible to enlarge image segments, display these on the process monitor and use them for register correction.

**APD (Automatic printing Pressure adjustment Device).** Automatic impression setting as standard equipment.

The stock thickness is entered at the PECOM Press Center and all blanket cylinders move to the appropriate distance from the impression cylinders. Different settings for individual units are possible and this is also done from the Press Center.



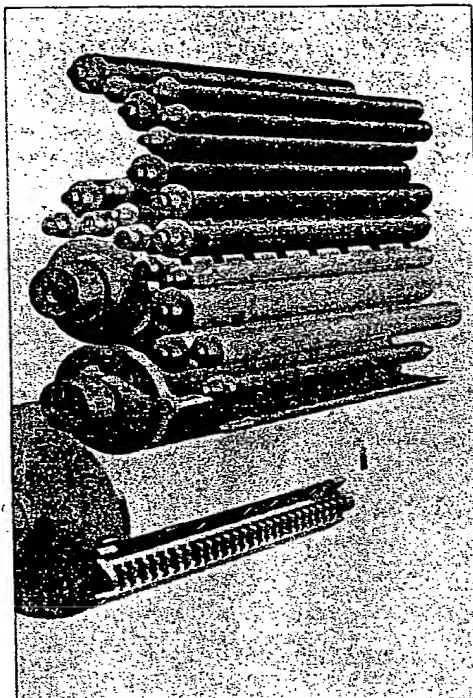
**PPL (Power Plate Loading)**

**PPL (Power Plate Loading) and APL (Automatic Plate Loading).**  
Automatic plate mounting and automatic plate changing.

With the automatic plate mounting system PPL (optional), all the printer has to do is insert the plate into the clamps and this is assisted by a guiding device. Then, on pressing a button, the plate is firmly clamped and tensioned. The objective of this system is to provide exact plate mounting so that even the first sheet is in register.



With APL, the automatic plate changing system, no manual steps are necessary. While the press is running, plates for the next job can be placed in the plate changing facility located at the printing unit. Plate changing is effected by push-button fully automatically in less than one minute per printing unit – on all units or on selected units. The old plates can be removed from the devices while the press is running on the new job. Just like PPL, the system can use new plates or standing plates with bent edges. Both APL and PPL offer highly accurate register and also correction facilities when needed with difficult papers.



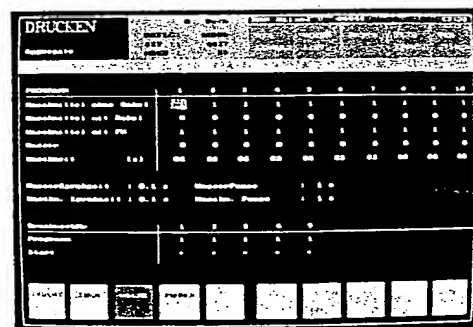
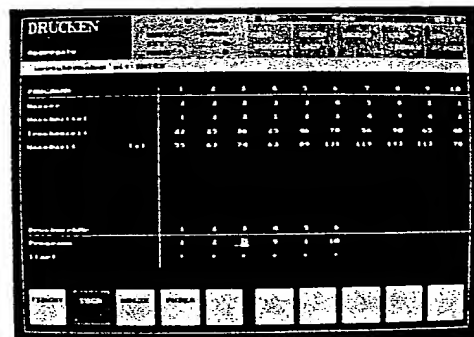
#### ARD (Automatic Roller washing Device)

The Roland 700 also has an automatic ink roller washing device as standard equipment. A variety of washing programmes can be defined, with separate settings for water and solvent to suit differing washing requirements. The ARD is also activated from the PECOM Press Center.

Both the blanket washing device and the ink roller washing device use a minimum of solvent, thus protecting the operating personnel and the environment.

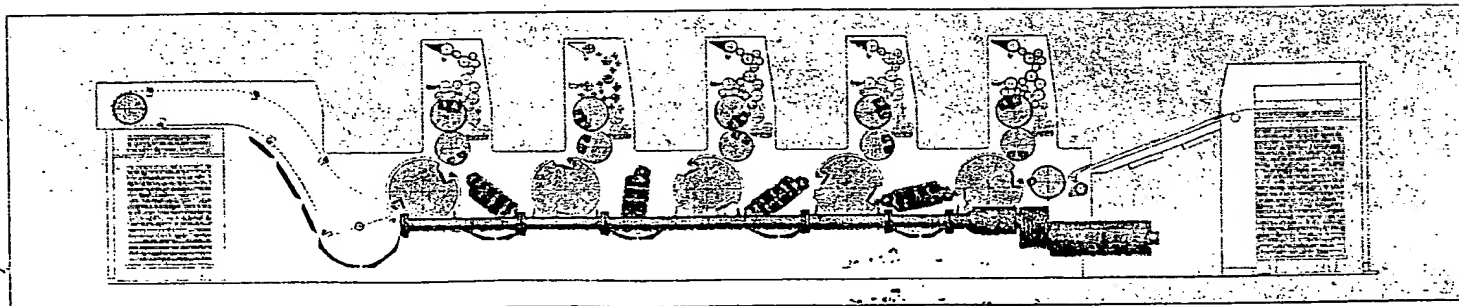
#### ABD (Automatic Blanket Cylinder washing Device)

A blanket washing device is standard equipment. It is activated from the PECOM Press Center and provides fast cleaning of the blankets. A variety of washing programmes can be defined, with separate settings for the amount of water and solvent, to suit differing washing requirements. Ink and solvent residue is absorbed by the cleaning cloth. The location of the device below the dampening unit means that the good accessibility to the plate and blanket cylinders is maintained.

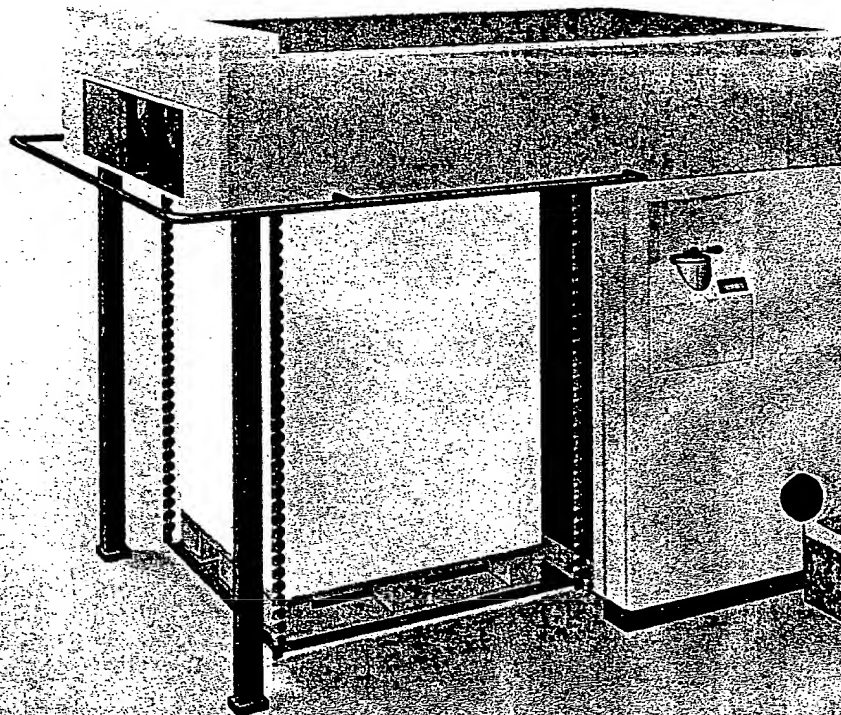
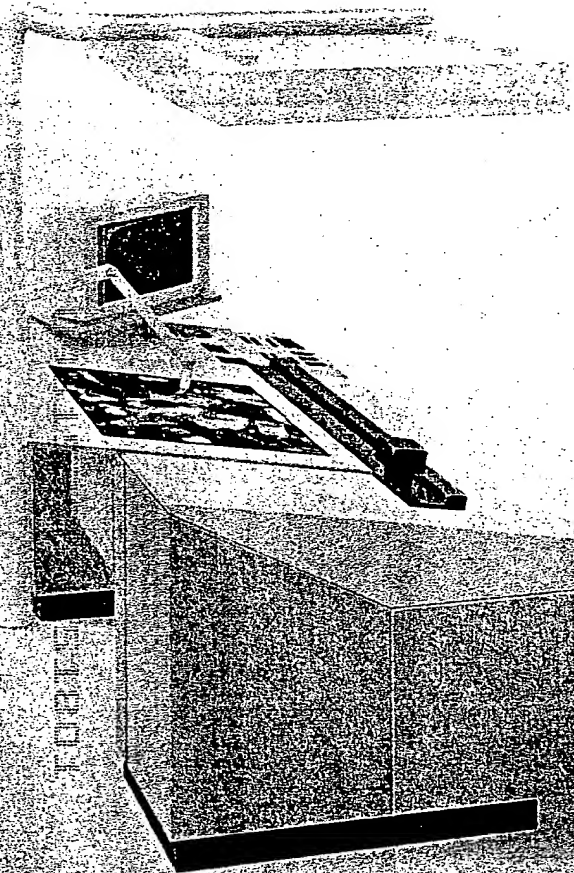


#### Optimal machine drive by means of distortion-free longitudinal shafts

Particularly with unit design presses, uniform drive to all printing units is of paramount importance. A rigid, distortion-free drive construction incorporating longitudinal shafts guarantees exact register. The smooth running of the Roland 700 is most convincing. Press configurations of up to eight printing units are possible without any difficulty.



# Roland 700 at a glance (Status May 1994)



Operation of press functions as well as peripheral units from the PECOM Press Center, operator prompting and diagnostic reporting

Data bank for up to 5,000 orders in the Press Center as standard equipment

Light register (optional)

Interface to PECOM concept functions - TPP station (optional)

ASD - automatic sheet size setting for the delivery and the powder sprayer

Roland RCI inking control system

Roland CCI inking regulation system (optional)

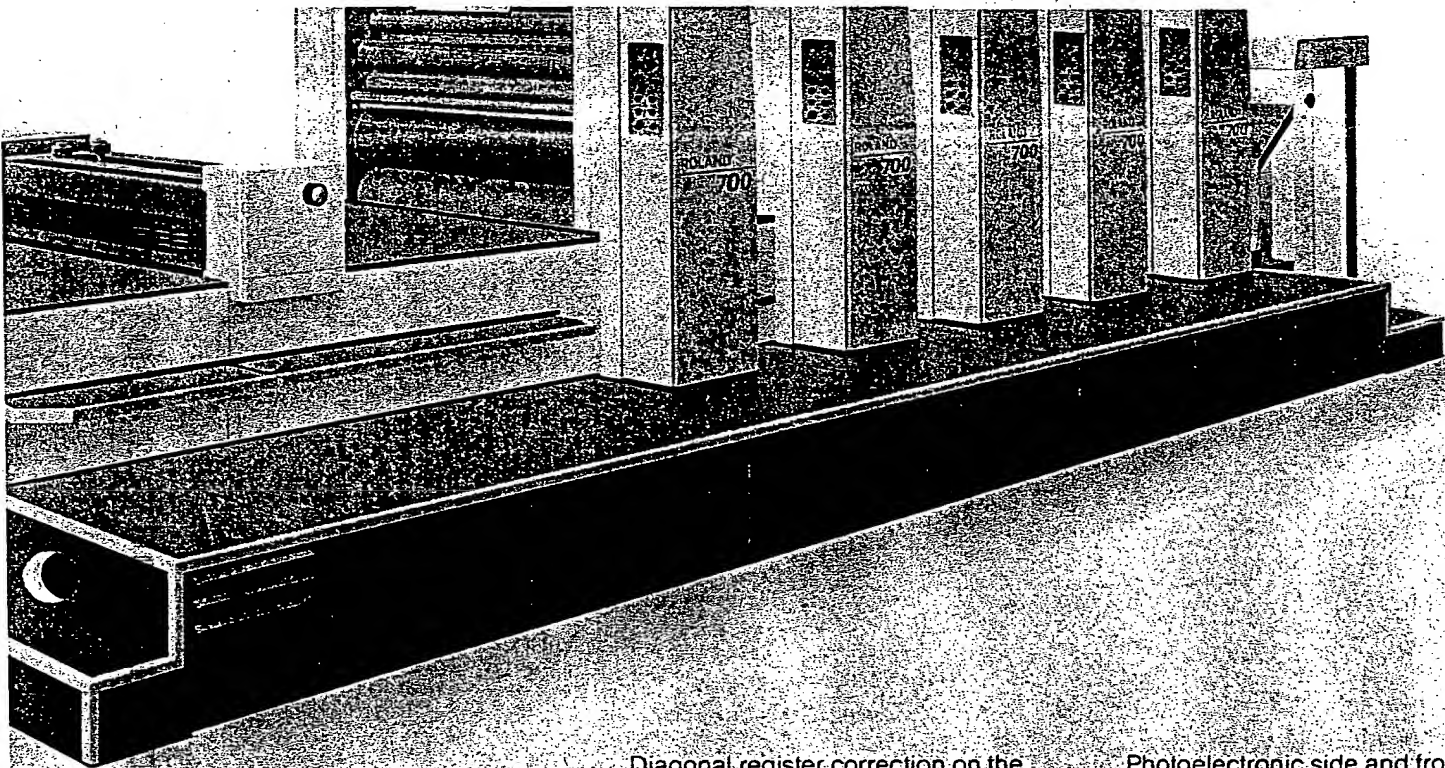
Sheet decurler

Non-stop delivery

ACD - automatic plate cylinder positioning for plate mounting

PPL - automatic plate mounting (optional)

APL - automatic plate changing (optional)



RQM – register control and regulation (optional)

One or two coating modules with transfer module and extension (optional)

Oscillation timing – setting on the run possible

Stepless adjustment of ink forme roller oscillation on the run

APD – automatic pressure setting between blanket and impression cylinder

Transferer for smear-free sheet transfer

Diagonal register correction on the run possible

ARD – inking roller washing device

Individual and joint setting of contact between forme inkers and the plate

ABD – blanket washing device

Film dampener for separate or integrated dampening, including Delta effect

Quick-action blanket tensioning

Pneumatic sidelay

Perfecting system (optional)

Photoelectronic side and front edge control with trend display

Lateral pile edge control for automatic adjustment of the pile carrier plate

ASD – automatic sheet size setting for the feeder and the pneumatic sidelay

Electromechanical double sheet detector

Diagonal setting of frontlays with external individual adjustment

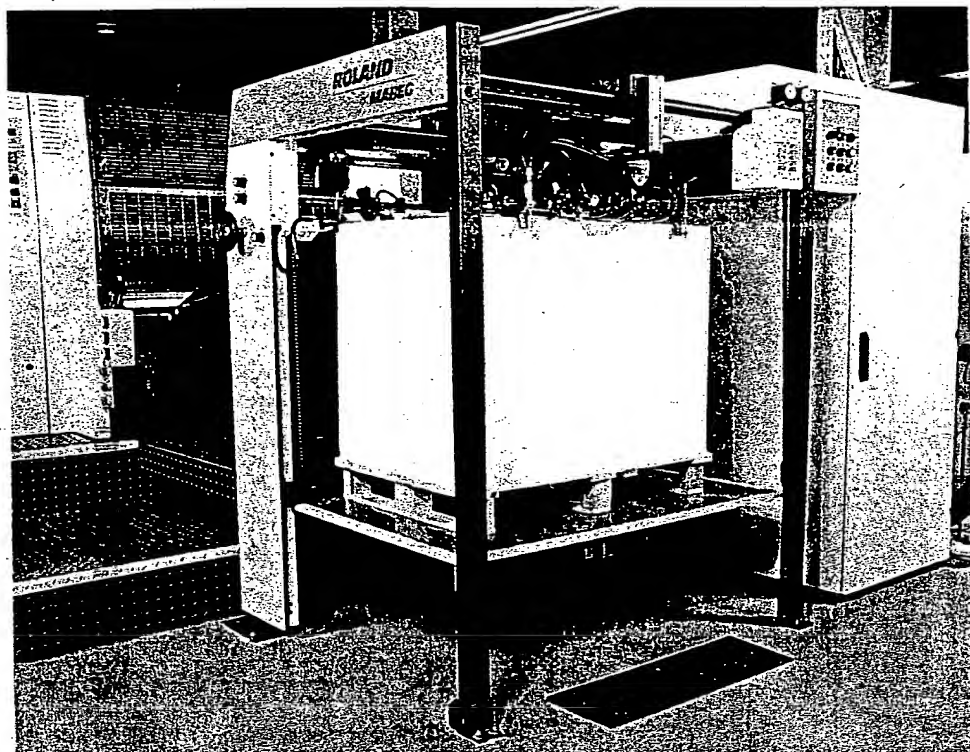
Height setting of lay covers

Non-stop feeder

Suction feedboard



# The Roland 700 from feeder to delivery



## Non-stop feeder with ASD (Automatic Size positioning Device)

The Roland 700 is equipped with the proven Mabeg non-stop feeder, which includes a motor-driven automatic lateral pile correction facility and a pre-stacking device. Automatic size setting is standard equipment. The sheet dimensions are input at the PECOM Press Center and the lateral pile guide position is then set automatically. The delivery and side-lay settings are coupled with the feeder settings and follow automatically.

### Advantage:

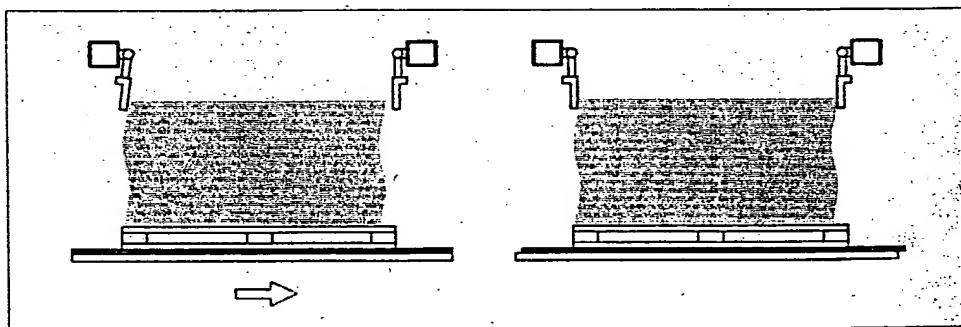
- considerable reduction of makeready time by the elimination of many manual tasks.

## Pile plate in the feeder

Piles can be loaded into the feeder on the pallettes they are delivered on, it is not necessary to transfer them to press pallettes. The pile plate is suitable for all types of pallettes. A lateral pile edge monitoring system is provided as standard equipment, which automatically adjusts the pile position if necessary. This ensures an identical pulling distance at the pneumatic sidelay for all sheets. Lateral corrections can also be made directly at the feeder by push button. An automatic centering device on the carrier plate prevents loading mistakes.

### Advantages:

- considerable work reduction and time saving during feeder loading.
- elimination of lateral register differences.



## Improved pile control

A new monitoring system provides optimal pile control on the Roland 700.

The pile height was previously monitored and adjusted by means of a pressure foot located at the rear edge of the pile. Sometimes the front edge of the pile was not optimally set to the frontplates. An additional sensor at the pile front edge now ensures trouble-free feeding.

### Advantages:

- optimal monitoring and adjustment of the pile height ensures uninterrupted feeding.
- stoppages are avoided, waste is reduced, net performance is increased.
- the printer is relieved of the monitoring task at the feeder.

## Suction feedboard

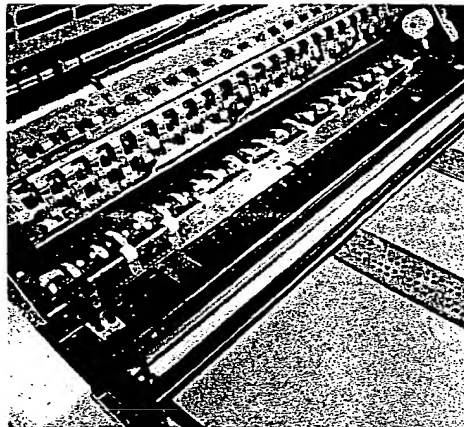
Instead of a multitude of wheels and brushes as with conventional stream feeders, sheet transport on the Roland 700 is effected solely by suction tapes recessed in the feedboard which transport the sheet to the infeed area. There is no resetting necessary when changing sizes. The suction feedboard ensures troublefree sheet transport from the pile to the frontlays.

No wheels or brushes means no risk of smearing or marking on a second sheet pass. There is no risk of sheet deformation because the suction tapes are recessed and have the same level as the feedboard surface.

Suction rollers help to bring the sheet securely to the frontlays. From thin paper to thick carton, the suction feedboard can handle a wide variety of substrates.

### Advantage:

- considerable makeready time savings and an increase in production reliability.

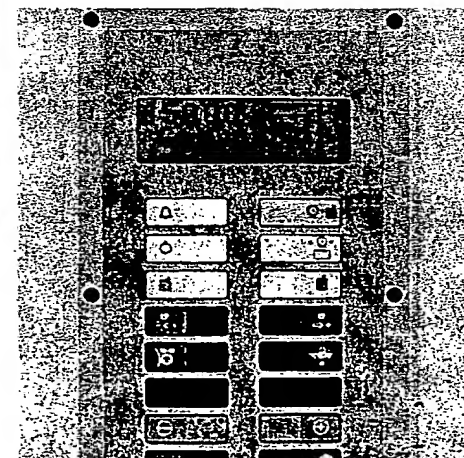
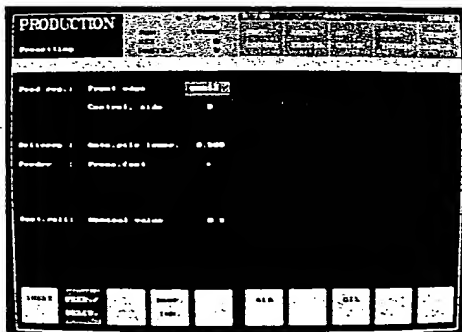
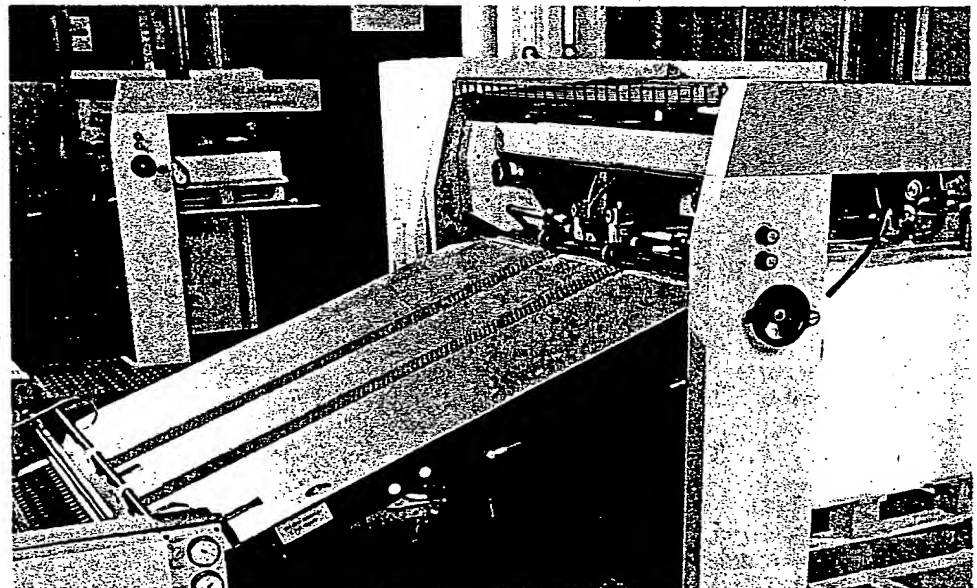


## Blast/suction elements in the infeed plate

The air stream from the blast/suction elements creates an underpressure which stabilises the sheet front edge at the infeed.

### Advantage:

- stocks which tend to have a wavy front edge are brought securely under the lay covers.

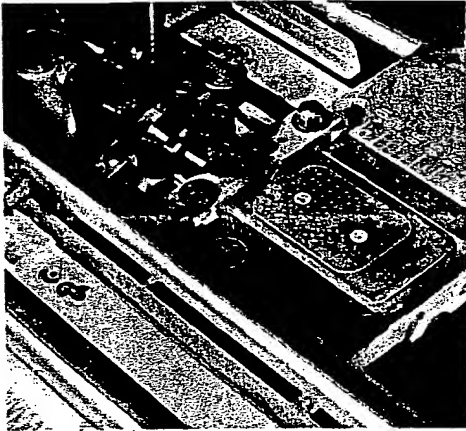


## Side edge control and trend display

The sheet is permanently monitored by a computer-supported trend display. Diagonal, early or late sheets are recognised and optically indicated in a display located at the first printing unit. The display informs the operator of the feeder condition and he can intervene accurately, thus ensuring a more reliable infeed.

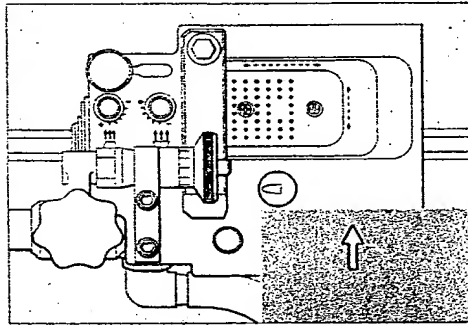
### Advantages:

- reduction of stoppages and startup waste.
- high print quality is maintained.
- higher productivity.



### Pneumatic sidelay

Like all MAN Roland presses, the Roland 700 is equipped with the patented pneumatic sidelay which has many advantages that contribute to high production reliability. No pulling roller means no risk



of sheet damage. Pulling from below the sheet means more time for front and lateral sheet alignment. When changing sheet sizes, makeready time is reduced. On the Roland 700, the sidelay adjustment is made simply by inputting the sheet size at the PECOM Press Center. The pneumatically controlled sidelay has a long service life, in part due to the hardened sheet stop face and a ceramic-coated suction plate.

#### Advantages:

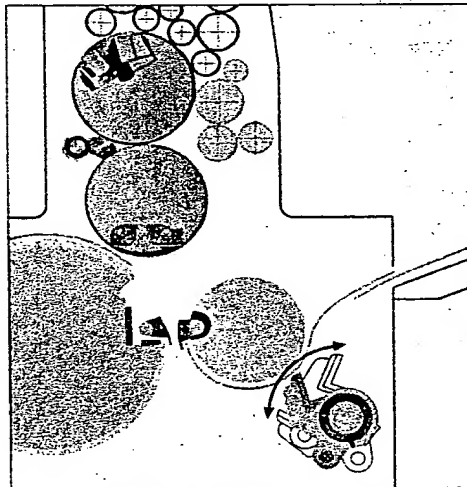
- high production reliability.
- shorter makeready times.

### Pregripper from below

The pregripper operating from below takes the sheet after the laying process, accelerates it up to machine speed and transfers it to an infeed drum. A force-controlled cam/lever mechanism ensures reliable and accurate transfer even at the maximum speed of 15.000 sheets per hour.

#### Advantage:

- through optimisation of the mechanical motion, acceleration of the sheet has been greatly reduced.

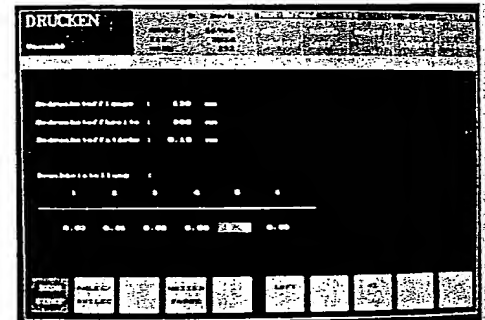


### Infeed barrier

Blocking of the frontlays, the lay covers and the pregripper reliably prevents early or diagonal sheets from entering the press.

#### Advantage:

- a high degree of press safety.



### APD (Automatic printing Pressure adjustment Device)

Adjustment of the pressure between the blanket and impression cylinders according to the stock to be run is done from the PECOM Press Center. It is possible to set each individual unit to a different setting.

#### Advantage:

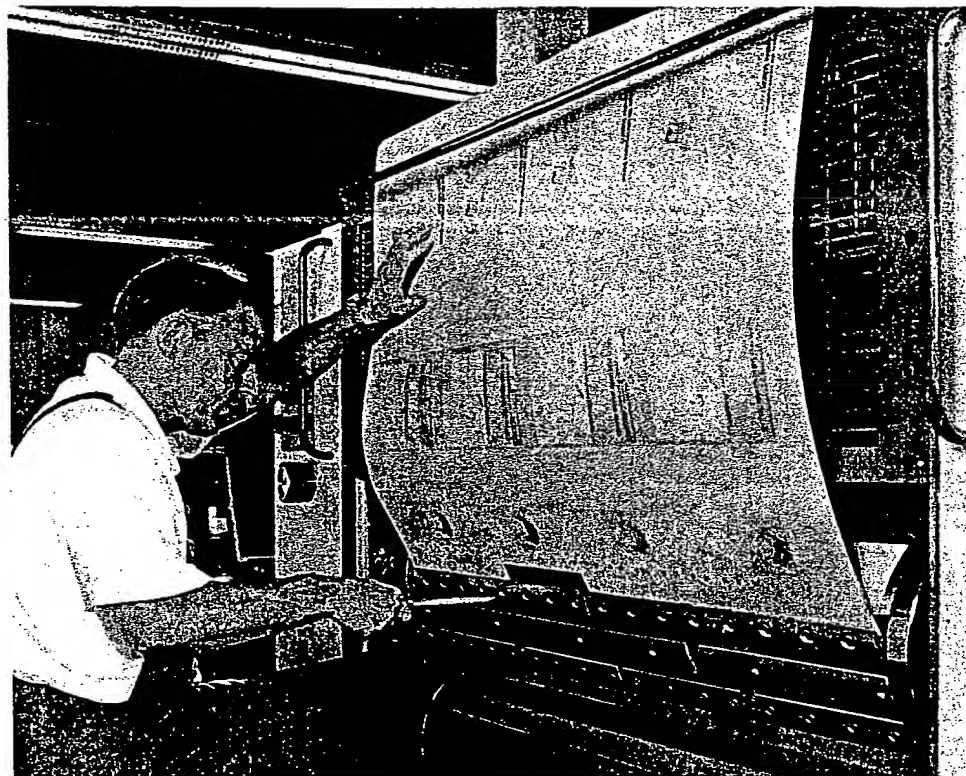
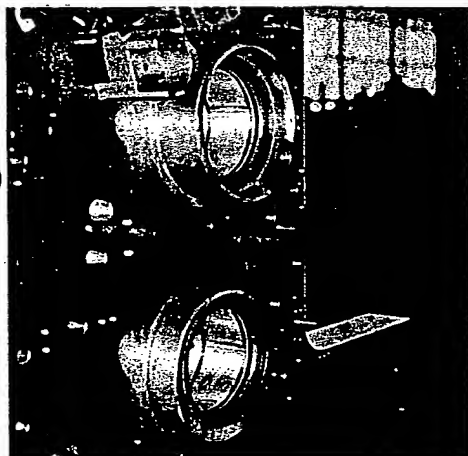
- reduction of walking distance and shorter makeready times.

## Cylinders

The plate and blanket cylinders are equipped with sliding bearings. The cylinder bearings revolve inside the bearing shell. Plate, blanket and impression cylinders are surface coated to protect against rust.

### Advantage:

- the pressure-absorbing cylinder bearings permit operation with or without bearer contact.



### ACD (Automatic Cylinder setting Device)

Automatic cylinder positioning for fast plate changing. At the push of a button, the plate cylinders automatically revolve to the optimal position for plate mounting.

### Advantage:

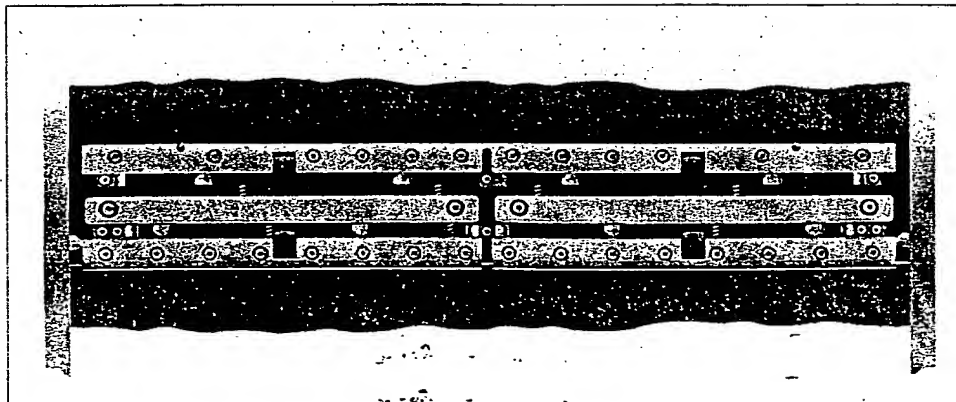
- time-consuming inching is eliminated.

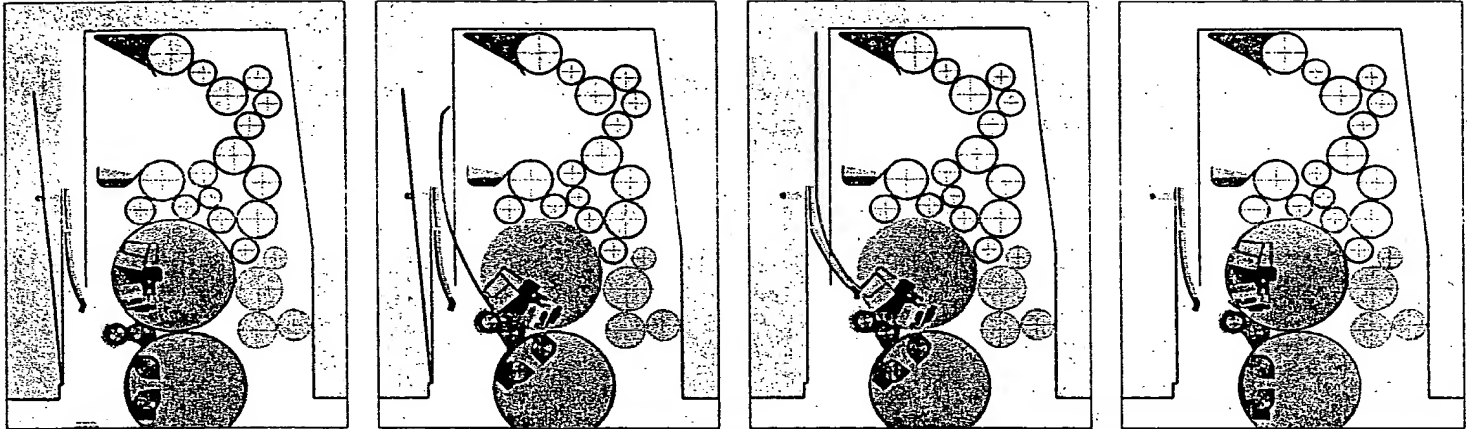
## Register system

The Roland 700 is equipped with a register system in the plate clamps which includes centre positioning and a zero notch.

### Advantages:

- exact location of the plate laterally through the centre positioning and circumferentially through the zero notch.
- reduction of makeready time.



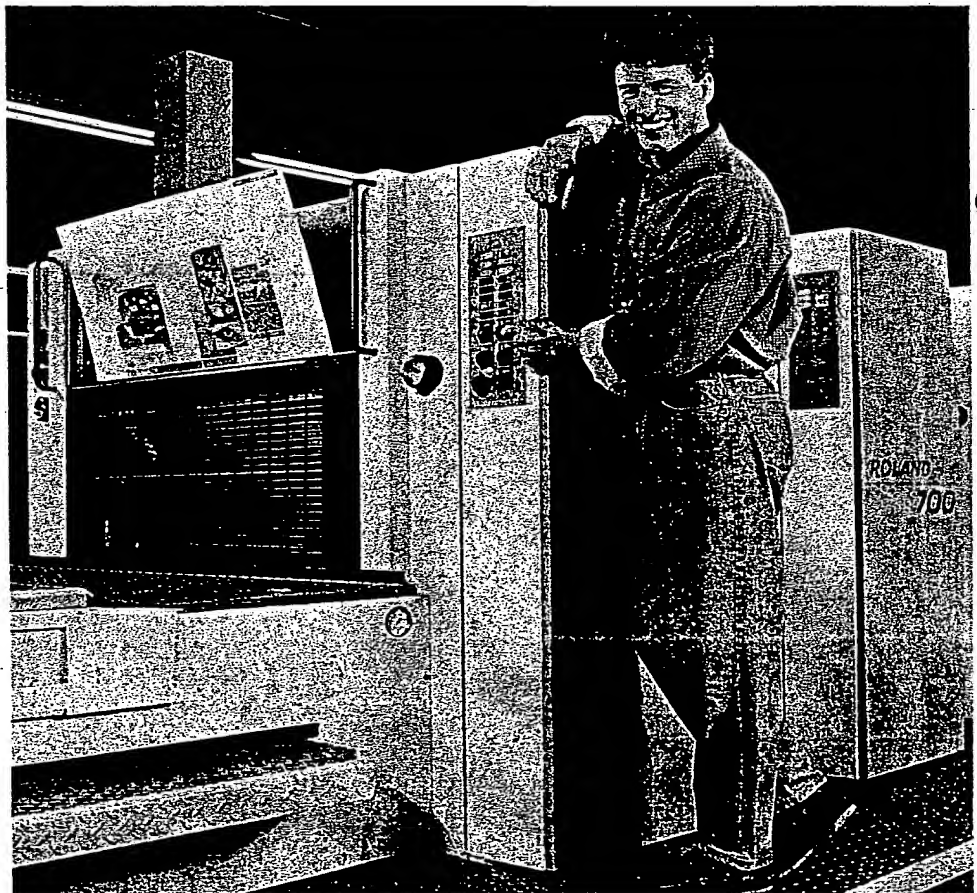


**PPL (Power Plate Loading) and APL (Automatic Plate Loading)** Automatic plate mounting and automatic plate changing.

PPL is an automatic plate mounting system (optional) which reduces the time needed for plate changing to less than one minute per printing unit and also increases operating comfort. Both used plates or new plates with straight edges can be used.

APL is an automatic plate changing system that enables plates to be changed without any manual steps. Just like PPL, APL provides highly accurate register.

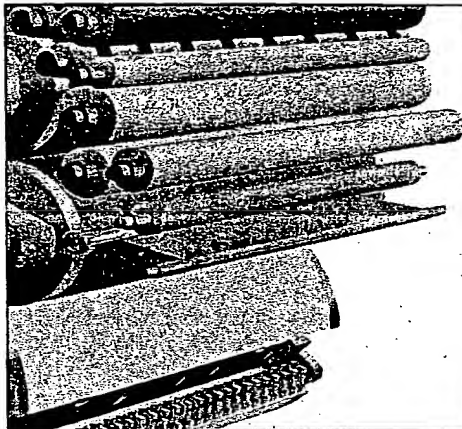
When printing certain grades of paper it may be necessary to make fit corrections. With both APL and PPL it is possible to stretch the end of the plate laterally and circumferentially to compensate for dimensional changes in the stock. This is facilitated by the design of the rear plate clamp which is divided into seven segments.





### Quick-action plate clamping and tensioning

This device offers fast and accurate mounting of plates on the plate cylinder. The design of the clamp ensures that the plate is not distorted through tensioning. Only one setting screw provides even and parallel tensioning across the entire width of the plate. This prevents distortion.

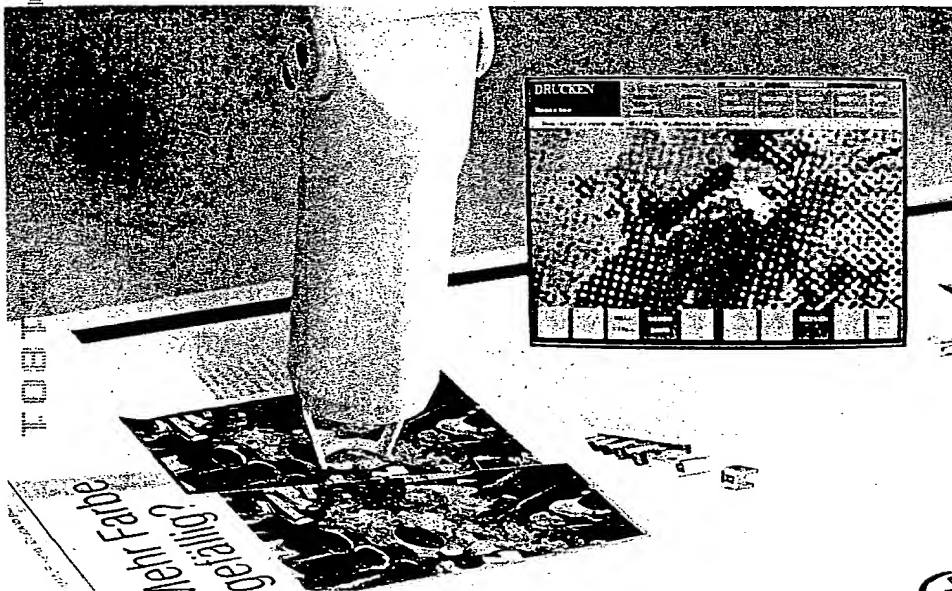


### ABD (Automatic Blanket Cylinder washing Device)

A blanket washing device is standard equipment and relieves the printer of the tiresome and time-consuming task of washing blankets. A variety of washing programmes can be defined to suit varying cleaning requirements.

#### Advantage:

- relief from unpleasant tasks, increase in production reliability.



### RQM (Register and Quality Magnifier) Register control and regulation

The optional RQM register regulation represents an extension of the plate cylinder remote register control. Either register crosses, or picture segments enlarged 50 times, can be displayed on the Press Center monitor and used to correct register.

The printer selects a picture detail (e.g. a register cross) from one of the colours and displays this on the monitor as his reference point. The identical picture details, or register crosses, of the other process colours or special colours which are not yet in register to the reference point are allocated to the respective

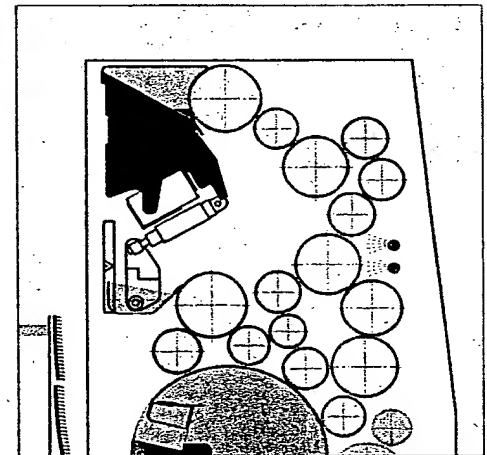
printing units. The deviation from the reference point is automatically calculated and, by pushing the regulation key, circumferential and lateral register correction is effected.

#### Diagonal register

With this diagonal register control, even diagonal register corrections can now be carried out on the run.

#### Advantage:

- startup waste is reduced.

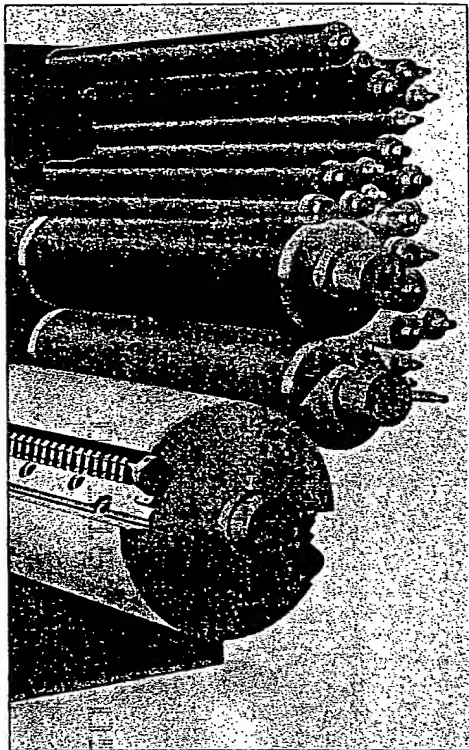


### ARD (Automatic Roller washing Device)

This device features comfortable operation from the PECOM Press Center. As with the blanket washing device, a variety of washing programmes can be defined and implemented.

#### Advantage:

- reduction of makeready times, relief from unpleasant tasks.



### **New computer-optimised inking unit**

To meet the wide variety of demands placed on a modern inking unit, computer simulation and extensive practical tests were made to determine the optimal roller geometry. Compared to systems in use up until now, a very considerable improvement has been achieved.

With subjects that tend toward ghosting, the oscillating forme inkers help a great deal in overcoming this problem. All four, or only the first three if so wished, are equipped with steplessly adjustable oscillating play which can be set from outside the inking unit.

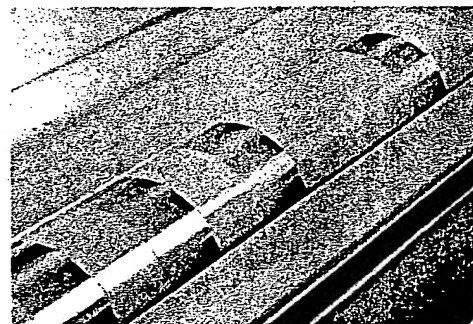
All inking rollers are easily accessible and can be exchanged very simply.

When changes are made to the plate packing or to the impression setting, the four forme inkers can be jointly reset, quickly and easily, by means of a central setting. In the case of a change to the pressure between the plate and blanket cylinders, the forme inkers are reset automatically. This ensures permanently correct settings.

The Roland 700 has a remote control setting for ink oscillation timing as standard equipment. Ink fade in the printing direction can be counteracted by altering the setting of the oscillation timing on the run. This adjustment is made from the PECOM Press Center, and it is particularly important when printing multiple-up formes.

#### **Advantage:**

- setting is faster and easier. This brings shorter makeready, reduced waste and significant quality improvements.

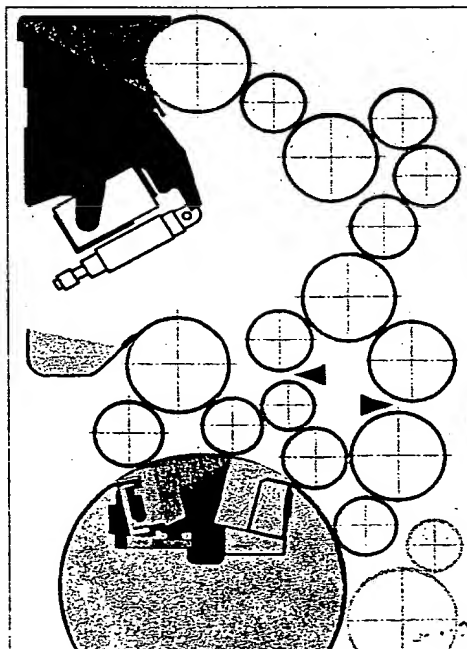


### **Programme-controlled sequence switching and ink unit separation**

The forme inking rollers are in contact to the plate several revolutions before printing commences. The forme is pre-inked, allowing the normal inking level to be reached much faster. The ink unit separation prevents the loss of the ink profile during a production stop. On resuming the run, the ink/water balance is achieved faster.

#### **Advantages:**

- the time required for colour balancing is reduced.
- less startup waste.



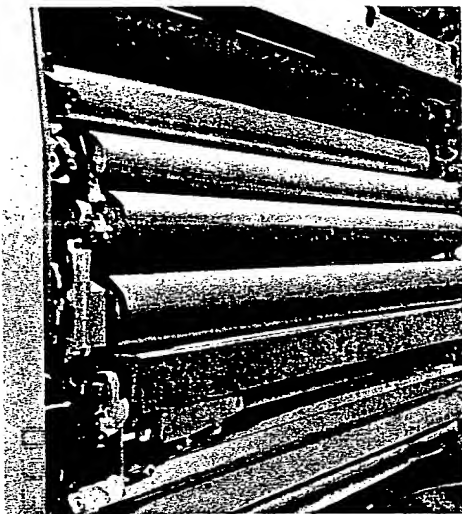
### **Roland RCI inking control as standard, Roland CCI inking regulation optional**

With the Roland RCI inking control integrated in the PECOM Press Center, the metering elements (ink slides) in the ink fountain can be quickly and easily set to 250 exactly defined setting positions to match the ink profile of the subject to be printed. Roland CCI (optional) provides automatic regulation of ink feeding. The digital signals for changing the ink slide settings are via fibre optics and are transmitted simultaneously. This means that colour corrections with the CCI system are carried out in a fraction of the time previously necessary.

#### **Advantage:**

- higher print quality, increased production reliability.





### A newly-developed film dampener with Delta effect

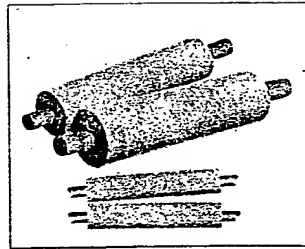
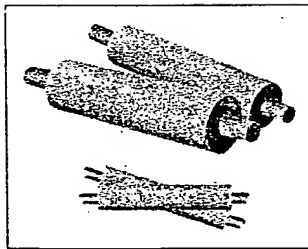
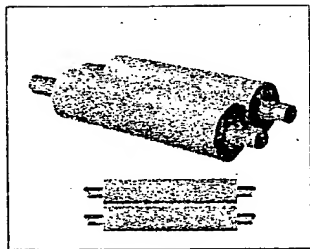
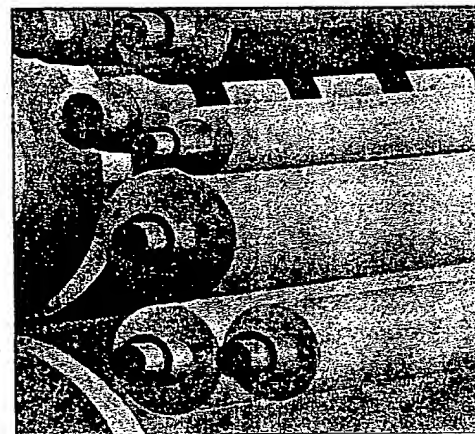
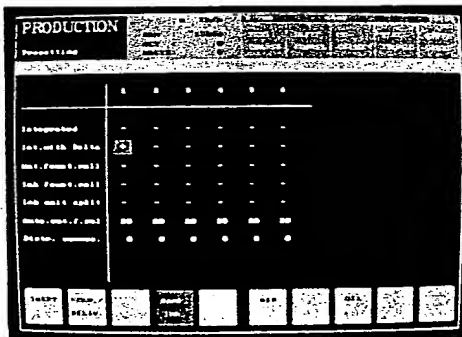
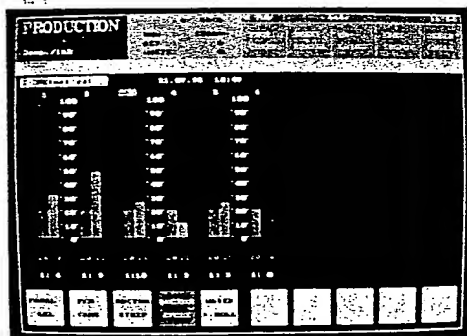
The Roland 700 is equipped with the new Roland Deltamatic dampener, which incorporates all the knowledge and experience available from modern film dampening systems. This includes an integration facility, whereby the dampener can be connected to the inking unit via a bridge roller. Under certain conditions this gives faster achievement of the ink/water balance. This gives the printer expanded possibilities to alter the dampener to suit individual job requirements.

The Delta effect is implemented from the PECOM Press Center. A reduction in the circumferential speed of the plate dampener gives a cleansing effect which removes particles from the printing plate.

#### Advantage:

- better print quality with stocks that tend to pick. Less waste.

When printing formes that tend to ghost, when using metal inks or when printing formes with a low ink consumption, the printer can work with separated inking and dampening units. The setting for integrated or separated modes is made from the PECOM Press Center.



### Diagonal setting of the metering roller

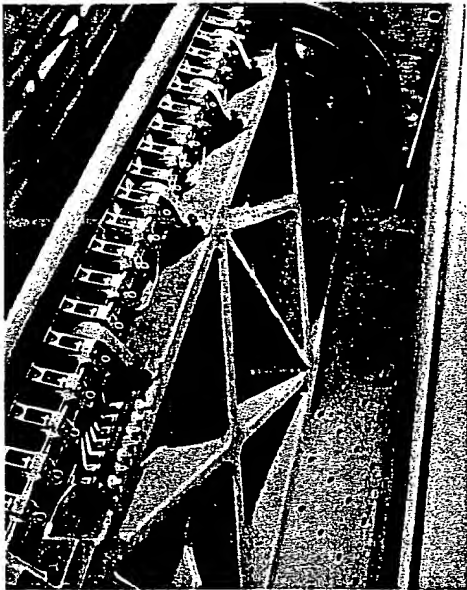
The diagonal setting possibility permits an even more exact control of the amount of solution.

### Washing of the dampening unit

The dampening units are washed together with the inking units. By means of the automatic roller washing device, all inking and dampening rollers can be washed at the same time.

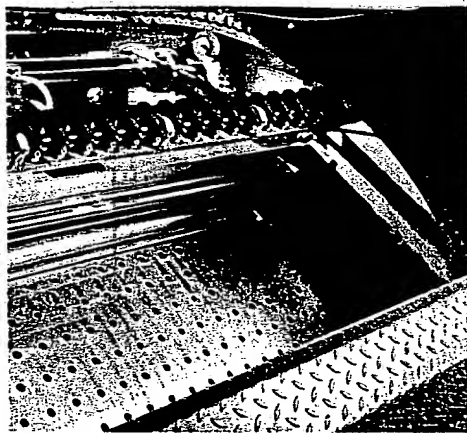
#### Advantages:

- shorter washing times.
- less work.



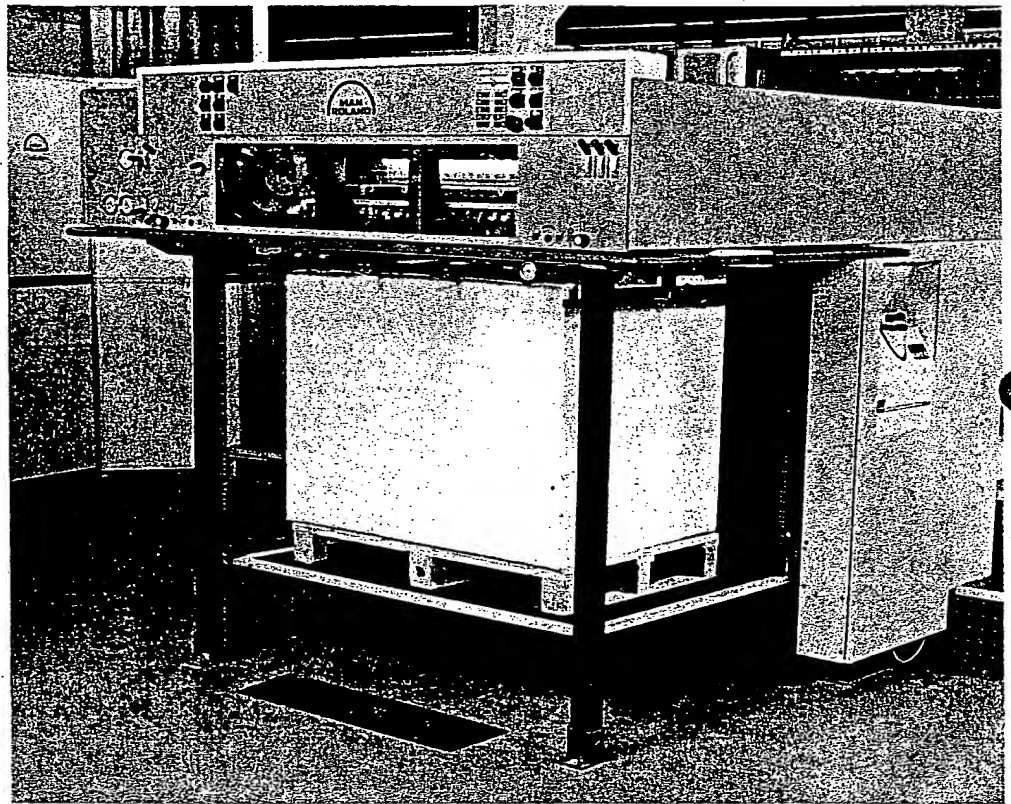
### Sheet transfer

Transfer between the printing units is by means of a double diameter Transferter. Steplessly adjustable sheet guiding tracks are located below the Transferter.



### Sheet transport into the delivery

The sheet is passed from the impression cylinder in the last printing unit into the delivery via a delivery drum also of double diameter. Transfer does not commence until the sheet is fully printed, even with sheets of maximum size.



### Sheet brakes

The revolution speed of the suction roller in the sheet braking system is speed-compensated. This ensures secure deceleration of the sheet even at varying speeds.

The sheet is transported into the delivery over an enclosed sheet guiding track which is divided into four segments. Steplessly adjustable air regulation from maximum suction to maximum blast ensures problem-free sheet travel.

#### Advantages:

- high production reliability through flutter-free sheet transport.
- reduced noise is better for the working environment.
- no adjustment necessary for different sheet sizes.

### Non-stop delivery

The non-stop delivery with pile carrier plate also contributes to high productivity. Pile changes can be made without interrupting production. The pile carrier plate makes pile changing faster and permits the use of pallettes of varying sizes.

#### Advantage:

- increased productivity.

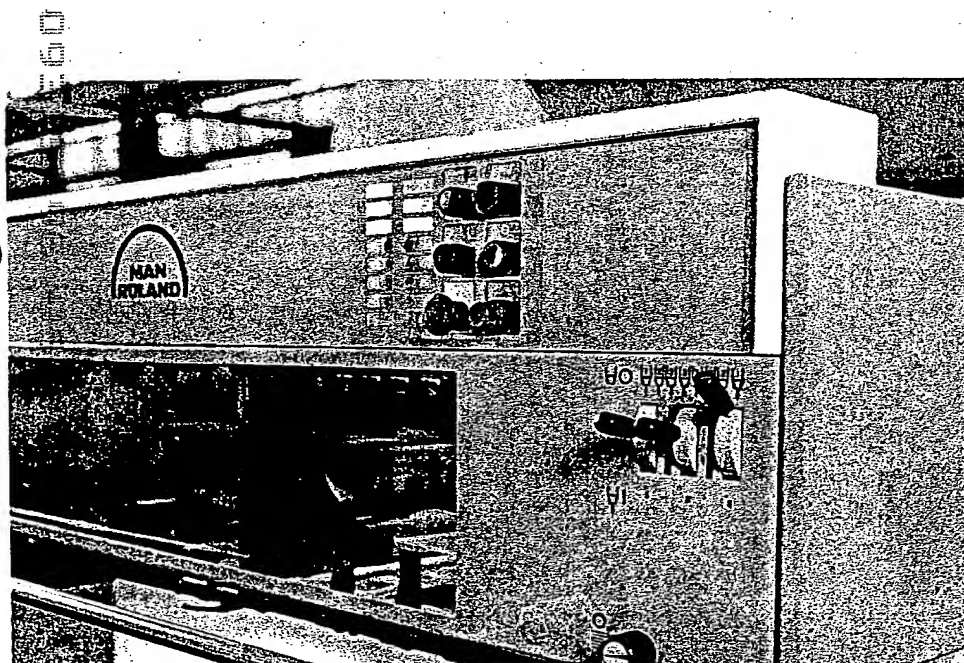
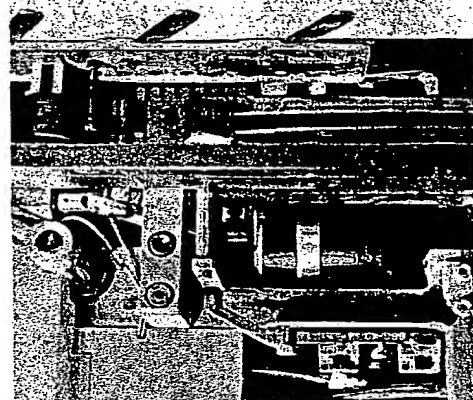
### Pneumatic inspection sheet removal

Safe sheet removal is ensured even at high speeds because a pneumatically controlled device maintains a safe distance between the sheet to be removed and the continuing production. This prevents stoppages caused by faulty operation.

### Shadow-reduced gripper system in the delivery

This is especially important when printing with UV inks, permitting shadow-free exposure of the UV inks to the polymerising light.

Advantage:  
– no delivery modification necessary for fitting of a UV dryer.



### ASD (Automatic Size positioning Device)

Sheet size settings for the delivery automatically follow the settings made for the feeder.

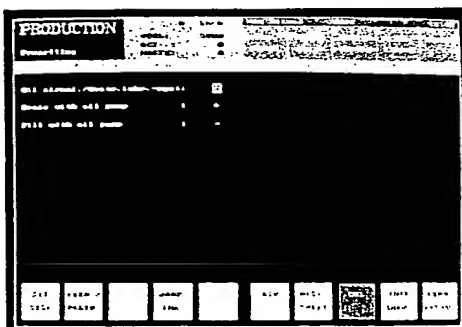
### Powder spray length setting

By inputting the sheet size at the PECOM Press Center, the spray length setting is automatically made.

### Blast air in the delivery

The blast air in the delivery is precisely directed. In addition, the air is extracted from under the oncoming sheet. This ensures safe and secure sheet deposit. Piling control is improved, the slow air extraction avoids sheet flutter.

Advantage:  
– the very high maximum speed is possible even with light grades of paper.

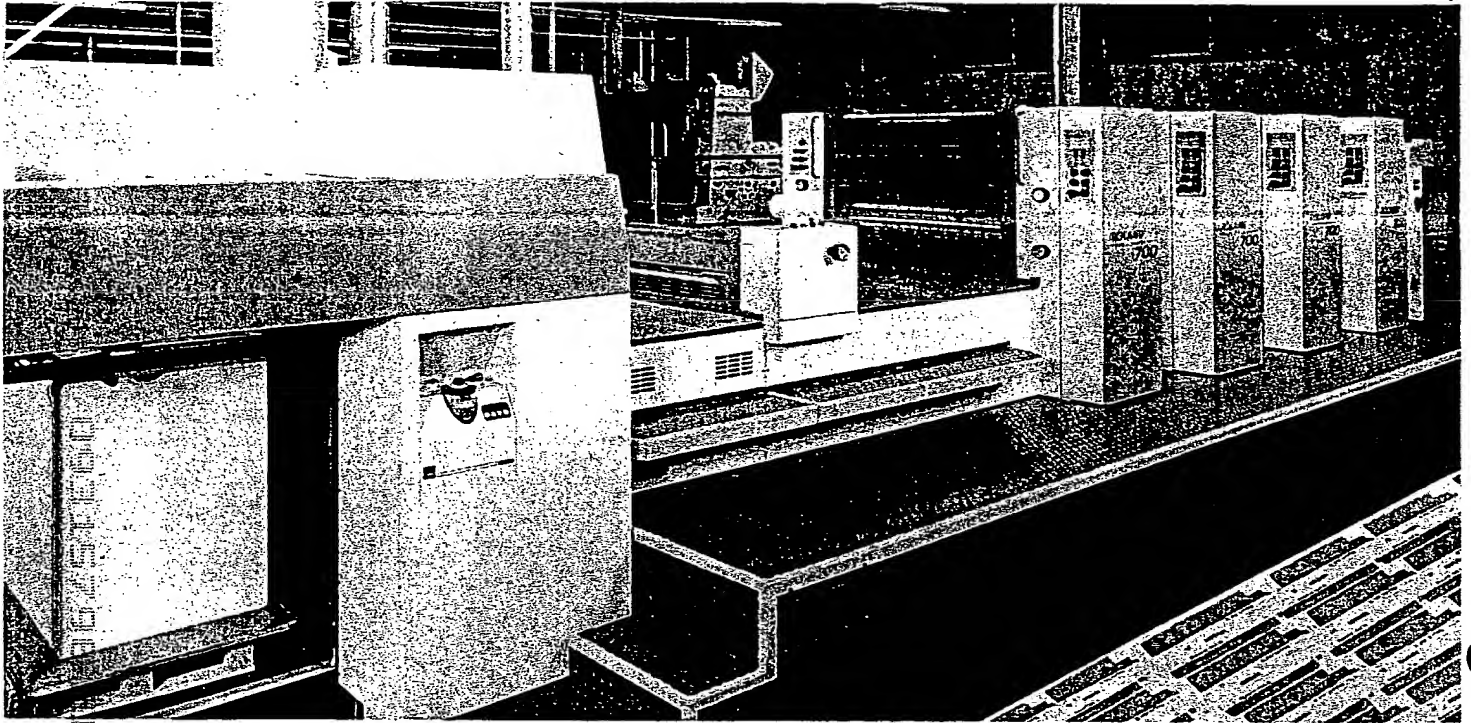


### Central lubrication

Central lubrication reduces the time necessary for maintenance to a minimum. The oil change for all printing units is centrally done by means of an oil drainage screw with a pump.

Advantage:  
– increase in efficiency and additional machine safety.

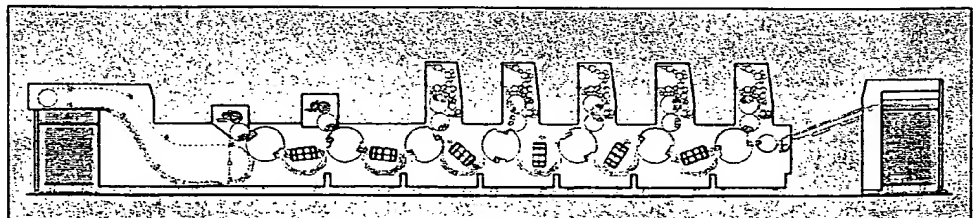
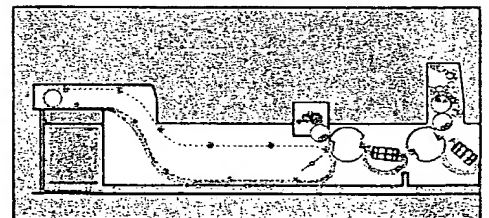
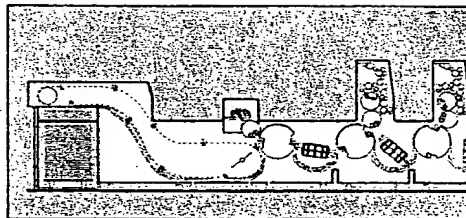
# Coating – because today printing alone is no longer enough



## A coating module for economical in-line enhancement

In many cases, the in-line coating systems from MAN Roland can save expensive separate processing involving separate equipment and manpower. The economic advantages: faster order processing by printing and coating together, lower production costs meaning more competitive pricing, and a lower space requirement. Intermediate storage of material requiring further processing is eliminated.

A transfer module is integrated between the last printing unit and the coating module. This increases the time between the last application of ink and the application of coating, meaning that the coating is applied to a relatively dry ink layer. This is an important requirement for high



her gloss. Additionally, the transfer module provides space for the installation of UV intermediate dryers when UV inks and UV coatings are to be used. An extension module (optional) can be

located between the coating module and the delivery. This increases the drying length and is an important advantage when thick coating layers are required.



# Technical Data (mm)

## Roland 700

Model	Number of printing units	Sheets/hour maximum	Sheet sizes maximum mm	Sheet sizes minimum mm <sup>1)</sup>	Printing area maximum mm	Machine dimensions length x width x height mm <sup>3)</sup>	Pile height <sup>4)</sup> feeder mm	Pile height <sup>4)</sup> delivery mm
<b>Roland 700</b>								
R 702 3B	2	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	7,213 3,450 2,140	1,180	1,080
R 703 3B	3	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	8,393 3,450 2,140	1,180	1,080
R 704 3B	4	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	9,573 3,450 2,140	1,180	1,080
R 705 3B	5	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	10,753 3,450 2,140	1,180	1,080
R 706 3B	6	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	11,933 3,450 2,140	1,180	1,080
R 707 3B	7	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	13,113 3,450 2,140	1,180	1,080
R 708 3B	8	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	14,293 3,450 2,140	1,180	1,080
<b>Roland 700 with transfer module and coating module</b>								
R 702 3B TL	2	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	9,338 3,450 2,140	1,180	1,080
R 703 3B TL	3	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	10,518 3,450 2,140	1,180	1,080
R 704 3B TL	4	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	11,698 3,450 2,140	1,180	1,080
R 705 3B TL	5	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	12,878 3,450 2,140	1,180	1,080
R 706 3B TL	6	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	14,058 3,450 2,140	1,180	1,080
R 707 3B TL	7	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	15,238 3,450 2,140	1,180	1,080
R 708 3B TL	8	15,000	740 x 1,040	340 x 480	715 x 1,020 <sup>2)</sup>	16,418 3,450 2,140	1,180	1,080
<b>Roland 700 - convertible multicolour/perfecting machines</b>								
R 702 3B	2	11,000 <sup>5)</sup>	720 x 1,040	340 x 480	700 x 1,020	7,213 3,450 2,140	1,180	1,080
R 703 3B	3	11,000 <sup>5)</sup>	720 x 1,040	340 x 480	700 x 1,020	8,393 3,450 2,140	1,180	1,080
R 704 3B	4	11,000 <sup>5)</sup>	720 x 1,040	340 x 480	700 x 1,020	9,573 3,450 2,140	1,180	1,080
R 705 3B	5	11,000 <sup>5)</sup>	720 x 1,040	340 x 480	700 x 1,020	10,753 3,450 2,140	1,180	1,080
R 706 3B	6	11,000 <sup>5)</sup>	720 x 1,040	340 x 480	700 x 1,020	11,933 3,450 2,140	1,180	1,080
R 707 3B	7	11,000 <sup>5)</sup>	720 x 1,040	340 x 480	700 x 1,020	13,113 3,450 2,140	1,180	1,080
R 708 3B	8	11,000 <sup>5)</sup>	720 x 1,040	340 x 480	700 x 1,020	14,293 3,450 2,140	1,180	1,080

TL = Transfer and coating modules of standard length. Other configurations and additional extension (V) on request.  
The TLV version is 914 mm longer than the TL version.

<sup>1)</sup> Standard minimum size, smaller available on request.

<sup>2)</sup> The maximum image area is 730 x 1040 mm on request.

<sup>3)</sup> The machine dimension given above apply to the standard versions. Please refer to the respective press installation plans for binding dimensions.

<sup>4)</sup> Pile heights apply to standard configurations. With presses on 300 mm or 600 mm raised foundations, the pile heights increase by 300 mm or 600 mm.

<sup>5)</sup> 15,000 sheets per hour in straight printing mode.



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Fax + 49 69 83 05-14 40

## The Roland 700 – A model of...

### Efficiency

- A press for high-volume printing production.
- High net speeds with short makeready times achieved through sensible automation.
- Variable in application with all substrates, leading to a high degree of utilisation and consequently to increased profitability.
- New dimensions in efficiency through Console technology and the possibility of system integration into the PECOM process electronic concept.

### Quality

- The design – double diameter impression cylinders and Transferers – as well as the press drive principle ensures perfect register with few sheet transfers and minimal sheet bending.
- Roland RCI inking control system as standard equipment, highest quality (with protocol recording) with the optional Roland CCI inking regulation system.
- Centralised operation from the PECOM Press Center permits full concentration on quality.

### Reliable production

- Increased production reliability through decentralised electronics and digital signal transmission via fibre optics, operating condition reporting and a diagnostic system.

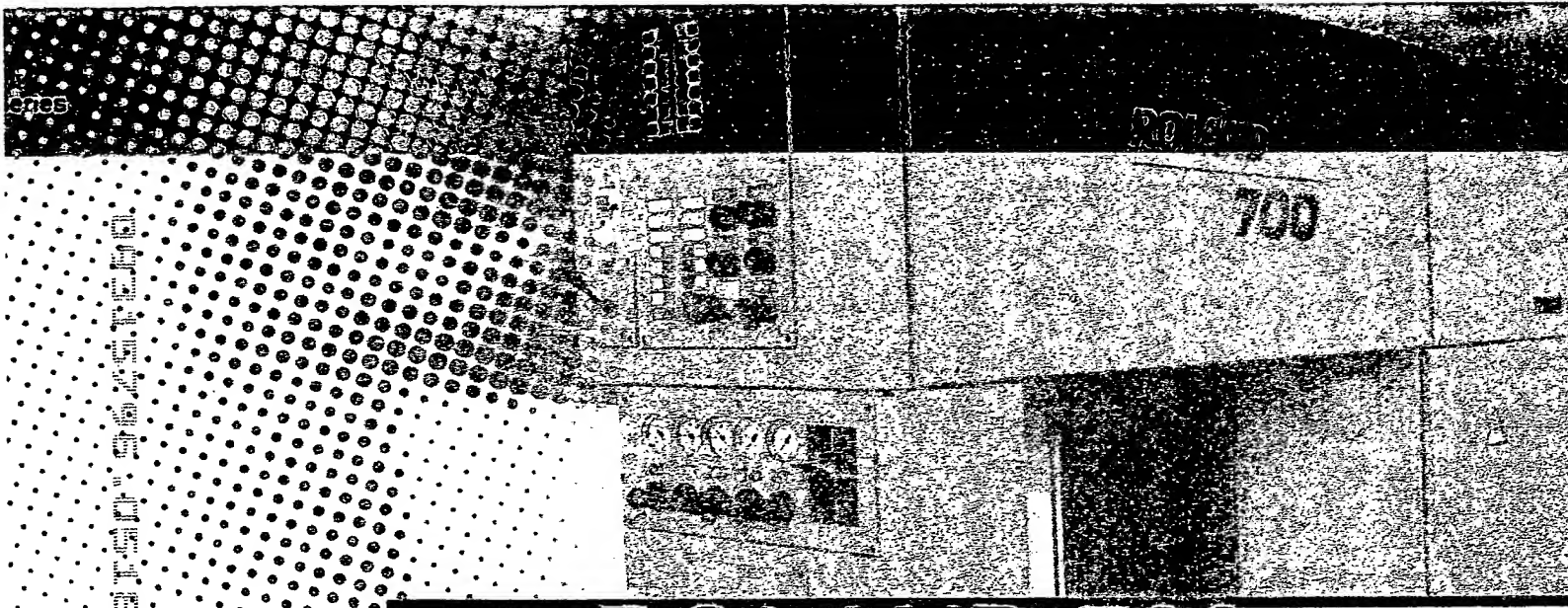
The details quoted in this brochure are non-binding. We reserve the right to make alterations at any time. Only the confirmation of order is binding for the press supplied.

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Profitability by Design.



## ***ROLAND 700.***

The all-round press in medium  
format (74/104).

## ROLAND 700: Example for maximum performance.

The standardized and highly-automated ROLAND 700 has stood the test in sheet-fed offset printing excellently - which has been impressively proven by more than 10,000 installed printing units. Innovative technology, in conjunction with high productivity and efficiency, make the digitally controlled machine a standard in the medium size and other format classes.

As a universal system, the ROLAND 700 can process all stocks between a thickness of 0.04 and 1.0 millimetres, from paper and carton to special materials, at a maximum speed of 15,000 sheets per hour in face printing and 12,000 in face and back printing. Above all, the sophisticated design of the sheet guide, printing unit, as well as the ink and damping unit, is responsible for the constantly high printing quality provided by the ROLAND 700. Highest precision and reliability of production is offered by the reversing technology with its advantageous single-drum reversal. Also magnificent is the state-of-the-art enhancement system with the Roland Seccomatic dryer for a demanding printing production.

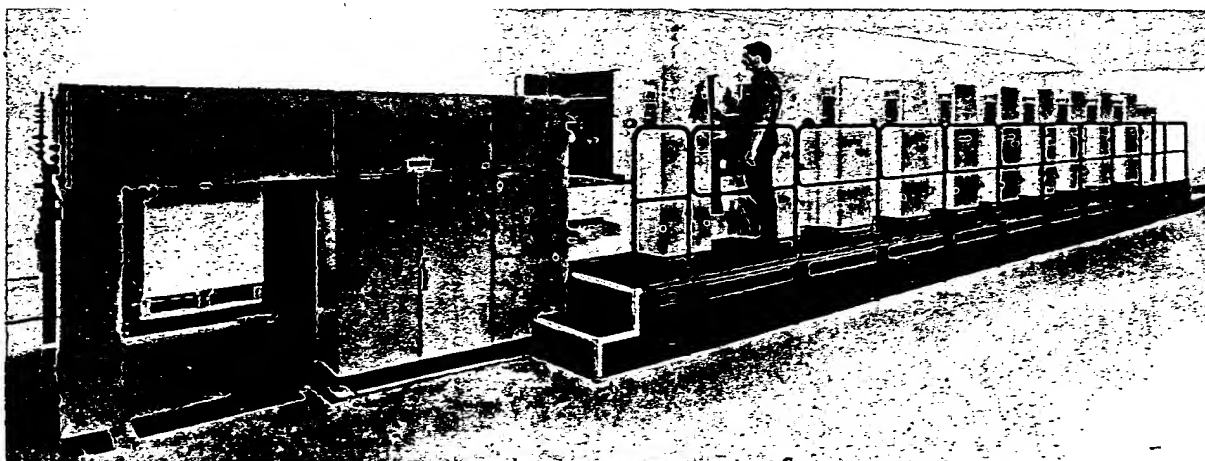
The additional integration into the leading PECOM process electronic system can combine the ROLAND 700 with the central job preparation, pre-press stages and administration on data level. Thus, the high degree of automation and the ergonomics of the press, with its comprehensive process control, supplement each other to form a trend-setting printing management system.

Thanks to its modular design, the ROLAND 700 can individually be configured, tailor-made for your requirements in commercial, packaging or special printing. With a maximum of ten printing units, up to two perfecting units and a single or double coating module, including an extended delivery, it can master each job structure. Furthermore, the ROLAND 700 can increase its enormous productivity again: by the automatic AUPASYS material logistic system, in particular in packaging printing.

### Roland 700 highlights at a glance.

- ☐ Max. 15,000 sheets/h in straight printing/  
12,000 sheets/h in perfecting printing
- ☐ Central control console, can be integrated  
in the PECOM system
- ☐ Automatic change of formats
- ☐ Automatic adjustment of stock thicknesses
- ☐ Automatic washing systems (blanket cylinders,  
impression cylinders and ink unit)
- ☐ Plate loading automated (PPL) or automatic  
(APL) including plate feed control
- ☐ Remotely controllable register settings
- ☐ Printing unit with cylinders in the 7-clock  
position, transferers
- ☐ Single-drum reversal
- ☐ Optimized ink unit (against gradual fading)
- ☐ Roland Deltamatic damping unit
- ☐ Ink control systems (RCI, CCI)
- ☐ Single or double coating module
- ☐ Roland Seccomatic dryer
- ☐ Integration in the automatic AUPASYS  
material logistic system
- ☐ Newly designed varnish supply system with  
a quick change of varnishes
- ☐ AirGlide delivery for top quality

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The 10-colour ROLAND700 Top quality and productivity in 5-colour double-sided sheet-fed offset.

## The universal system in commercial and special printing.

**The high productivity and the versatility offered by the ROLAND 700 opens up manifold applications in commercial and special printing.**

### **Efficiency does not depend on circulation.**

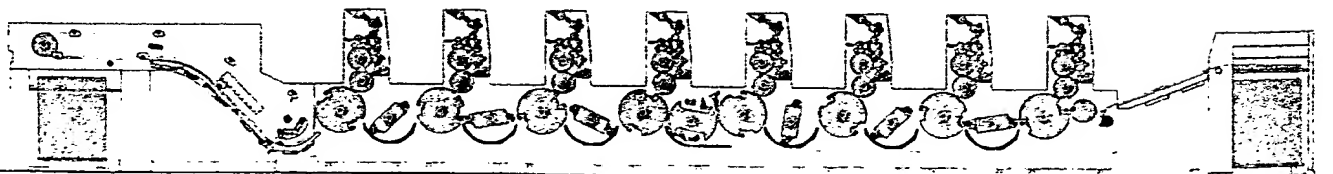
Thanks to its enormously fast job handling, the ROLAND 700 is remarkably efficient. This is achieved by numerous automations and by the central control via the central control console which is integrated in the PECOM process electronic system. In addition to an automatic adjustment of formats and stocks, the ROLAND 700 also provides an automated or an automatic change of plates in a true-to-register manner. The result: shortest makeready times at first-class quality. This allows you to produce even smaller circulations efficiently, such as special editions and posters. And in the case of medium and high circulations, you can profit from the high speed.

### **Quality is standard.**

Excellent printing quality - a matter of fact for the ROLAND 700. Computer-based ink and damping units combine responsiveness and storage volumes ideally, to provide optimum process control. The innovative colour measuring and control technology can reduce the waste, setting high standards. An advantage which will have an effect even on your material costs, especially in the case of high-quality stocks.

### **Much can be done.**

A wide range of stocks in commercial and special printing speaks in favour of the various applications of the ROLAND 700. It can process the thinnest bible printing paper as perfectly as, for example, foils and other special materials, and print stocks up to a thickness of 1.0 mm where "straight printing presses" are used.



*The ROLAND 700 with eight colours and perfecting - for variable commercial printing.*

## The standard in packaging printing.

### Flexibility for profitability.

The ROLAND 700 is ideally suited for the characteristic jobs in packaging printing. With its high flexibility, it can produce long runs of collapsible boxes as perfectly as display packaging in low numbers. The short makeready times and the resulting fast changes of jobs are a requirement for that. In addition the numerous automations always allow you a reliable production. All these are advantages of the continuous printing process which can have a special effect on the production output in packaging printing.

### Enhancement as desired.

Due to the high-quality inline coating system - consisting of the chambered doctor blade and the screen application roller, your ROLAND 700 can provide still more possibilities. As desired, the press can be equipped with single or double coating modules. The similar concept of the coating module and the printing unit permits the coating module to pass the sheet in a printed condition as well. The precision of the sheet travel is also guaranteed here. The Roland Seccomatic dryer integrated in the new Air-Glide delivery will always yield reliable production results.

### Added value by perfecting.

The attractive front side in four- or multi colour printing, the rear side in one or several colours with barcodes, product descriptions and instructions: the ROLAND 700 can cope with that in one pass of the machine by a single-drum reversal. Efficient in printing, profitable for you.

### Packaging printing

according to industrial standards -

the ROLAND 700

can offer a highly

specialized

technology for all

types of production.



The ROLAND 700 double coating module satisfies all enhancement desires.

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## With exemplary character in the sheet travel.

*The proven*

*ROLAND 700 sheet*

*guide can ensure*

*proper production*

*conditions in the*

*medium format.*

### **Quality with guarantee.**

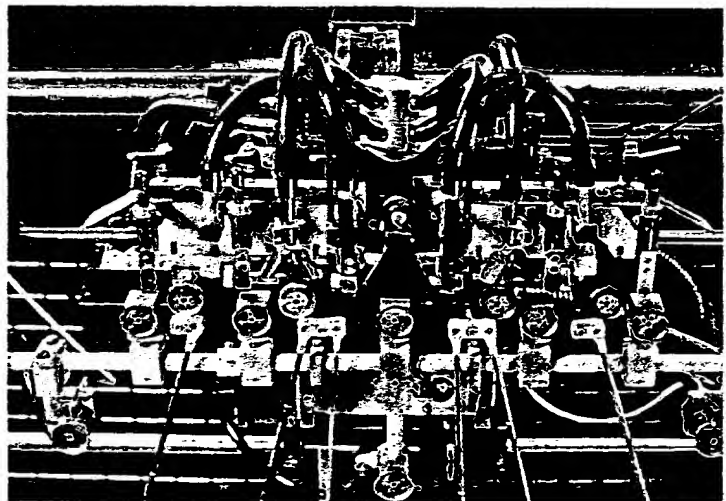
The optimum printing quality of the ROLAND 700 starts at the feeder where a suction tape feed board and the pneumatic side guides guarantee a mark-free sheet travel. An automatic lateral pile correction and a highly effective sheet deceleration support an exact alignment and feeding of the sheet. From printing unit to printing unit, the sheet transport is performed by transferers - a pioneer technology which was applied in the first ROLAND 700. This allows even distortion-free stock to be guided without contacts, avoiding scratches or smears of fresh ink effectively. Ventilator paths additionally increase the stability of the sheet. Finally, the new extended AirGlide delivery can optimize the sheet travel path, and ensure that the material is piled well.

### **Change of formats in record time.**

During a change of jobs, all required format settings are performed automatically and parallel to the other set-up processes. The ROLAND 700 can centralize up to 14 individual settings: among other things, on the suction head, on the sheet stops in the feeder and delivery, on the suction roller axle in the delivery, blanket-to-impression cylinder, and the setting of the powder device. Thus, all functions can be prepared for the new printing process within the shortest time.

### **Production printing stability by control.**

The ROLAND 700 uses extensive control systems to prevent a varying quality and expensive interruptions of the printing process. Double sheets are detected by electromechanical and photo-electrical means, and are automatically stopped on the system. While the machine is running, the sheet arrival time can be controlled exactly, and a misaligned sheet correction can be performed. Trend displays on the feeder and the central control console can even show the slightest deviation in the sheet travel, for the printman to eliminate the causes of stops before the machine stops. In addition, the misfed sheet detector in the sheet guide path can safeguard the production and avoid damage to the machine.



*The suction head on the feeder:  
an exact sheet alignment starts here.*

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## With technology to success.

### The printing unit for perfection.

Double-size impression cylinders and transferers provide a smooth sheet travel to save the stock. Other advantages are the transfer of printed sheets by the 7-clock cylinder position and plane bearings for the plate and blanket cylinders which alternatively allow a printing process with or without bearer ring contacts. Finally, the drive system combination of a longitudinal shaft and a gear train entirely excludes quality losses by mis-registers.

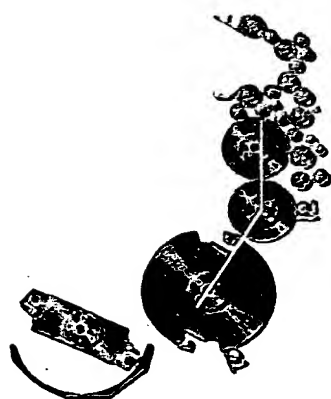
### Convenience during a change of plates.

The Power Plate Loading (PPL) system is a fast and safe plate change system for the ROLAND 700: less than one minute for each printing unit is required for a complete change of plates. After an insertion, the new plate is automatically drawn into the front clamping bar. An additional position check in the front rail can guarantee an exact start register to reduce the start-up waste. This can be performed more easily with the APL (Automatic Plate Loading), which is especially important for small circulations or long machine configurations: All plates can be changed fully automatically. Both during the PPL and APL, fine corrections to the circumferential, lateral and diagonal registers can be performed directly from the central control console. The diagonal register can be set via a declined position ("cocking") of the transferers without influencing the printing zone. Furthermore, the frequently practised levelling of the printing plates is eliminated so that they can be re-used.

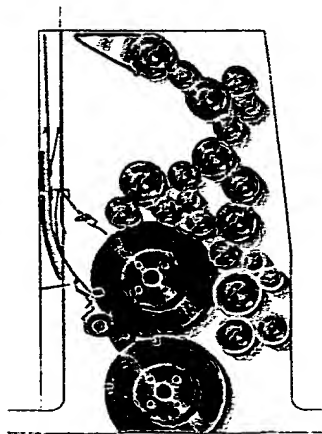
### The washing system has a saving effect.

Using the fully automatic washing facilities of the ROLAND 700, you can clean the blankets and impression cylinders in only a few minutes. On the central control console, the operator can select all individual washing processes and start them simultaneously. The different programmes which can be set depending on the degree of contamination will always provide an optimum cleaning result. And the brush washing systems only consume a minimum of wash, and significantly less wash is evaporated thanks to the largely self-contained design: an important contribution to environmental protection and ergonomics.

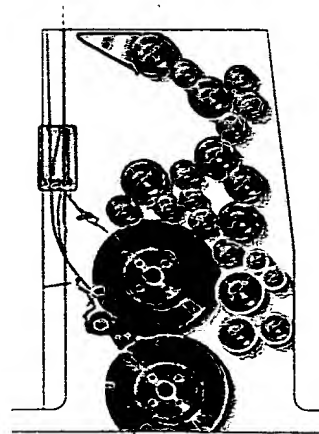
*Using the automated ROLAND 700, you can obtain productivity on the highest level by shortest make-ready times and simple operation.*



Printing quality in perfection with the 7-clock cylinder position



Automated change of pages (PPL)



Fully automatic change of plates (APL)

## More flexible by reversal.

**The ROLAND 700**  
**perfecting machine**  
**can guarantee**  
**an efficient printing**  
**process on both**  
**sides.**

### **Changeover on command.**

As a perfecting machine, the ROLAND 700 can offer the same high automation and operator convenience as the straight printing press does. A press of a key on the central control console is enough - and the conversion of the type of production is performed fully automatically within a short time. The unique automatic impression cylinder washing device, which is particularly advantageous in face and back printing, can be operated just as conveniently. In this operation mode, a regular cleaning is strictly required.

### **Reversal with distinction.**

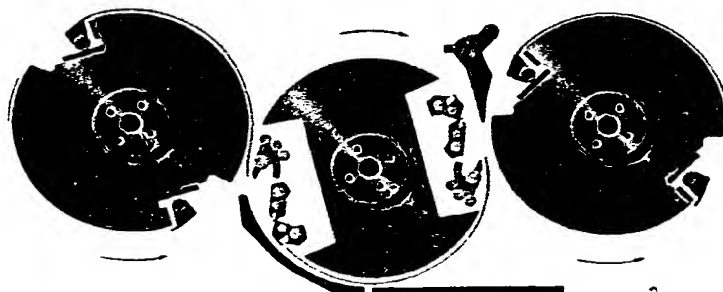
Using the innovative technology of the single-drum reversal, the ROLAND 700 can provide the most demanding printing quality on both sides of the sheet. This is ensured by the special structure of the perfecting unit made of one single reversing cylinder with a double-size diameter. On the one hand, this ensures a smooth and smear-free sheet travel with a minimum of deformation and, on the other hand, the high register accuracy is maintained.

### **Without contacts to colour.**

The interaction of suction and blast air guides the sheet reliably and without any contact with fresh print ink via the reversing drum. The proper ventilator path setting can even be stored for repeat jobs. At the beginning of the perfecting process, the rear sheet edge is sucked by sucking units in the perfecting cylinder and passed to the perfecting grippers tightly. The special surface of all impression cylinders contribute to very good printing results after a reversal. It does not leave marks on the sheets and is resistant to wear. Additional security is provided by the mis-fed sheet detector both in the reversing drum area and between the downstream printing units.

### **Job completed.**

The ROLAND 700 can be perfectly matched to each job structure: Up to two perfecting modules (depending on the number of colours) can individually be placed at meaningful positions. Thus, the 2/4 configuration is ideal for more than 60 % of the jobs with a 4-colour front page and 2-colour rear page. The stock options from 0.1 to 0.5 and 0.2 to 0.6 mm are absolutely new in face and back printing: crucial for packaging printing specialists, e.g. for the production of blister packagings.



*The single-drum reversal: the smear-free sheet travel ensures high printing quality on both sides.*

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## Ink and water, at an equilibrium.

### Standards for quality.

With its responsiveness and stable ink feed, the ink unit of the ROLAND 700 always ensures proper printing results. The capability of centrally setting the axial clearance of all four ink forme rollers of up to 18 millimetres, and of the ink distributor application points as well as the two changing damping distributor rollers, consistently counteract ghosting effects and an undesired gradual fading. Independent tests performed by FOGRA convincingly confirmed the effectiveness of the special ink unit optimization for avoiding a gradual fading: the results of the ROLAND 700 are up to 85 % above the recommendation of the institute.

### Our programme against waste.

The ROLAND 700 can guarantee stable conditions in the ink unit at any time: unnecessary start-up waste is prevented by the ink feed programme, which saturates the forme automatically with the job-related ink amount, prior to the start. The ink duct roller reverse movement guarantees a constantly high printing quality by a continuous removal of dirt from the ink slide area as well as by a speed compensation. The ink temperature control is similarly effective - which is extremely important for waterless offset printing or for extended printing times of high circulations in traditional sheet-fed offset printing. Even in the case of an interruption of the printing process, the high production run quality is maintained reliably: the ink unit separation prevents the first start-up sheet from being overinked. Another effective facility is the quick start

accelerating the machine at a new start - after interruptions of the printing process caused by production - to the previous colour print speed. Even the first sheet is printed again under production conditions, and the number of waste sheets caused by ink variations is reduced - under optimum conditions - from generally 30 to fewer than five.

### The Roland Deltamatic damping unit.

A speed difference between the plate cylinder and the damping roller generates a slight slip, the "Delta effect": the result is that hickies can be removed without interference with the printing image, or cannot enter the plate surface. The activation of the Delta effect is performed directly from the central control console without interrupting the printing processes.

### Damping solution metered perfectly.

The speed-compensated continuous-feed damping unit provides a continuous ink/damping solution equilibrium. The amount of damping solution can be controlled on the central control console where the transition roller can be switched to integrated or separate damping as required. The ceramic coating of the damping duct roller is a new ROLAND 700 feature, providing a more uniform distribution of the damping solution. This coating is a strict requirement for an alcohol-reduced printing process.

### Ink units automatically clean.

The automatic inker washing device provides excellent cleaning results in a time-saving and environment-beneficial manner. A selection of ten washing programmes, which can be started quickly and conveniently from the central control console, is available.

### An optimum ink

*application even for*

*difficult subjects*

*is a feature of the*

**ROLAND 700 ink**

**unit.**



The ink and damping unit with their "Delta effect".

## **Ink security has programme.**

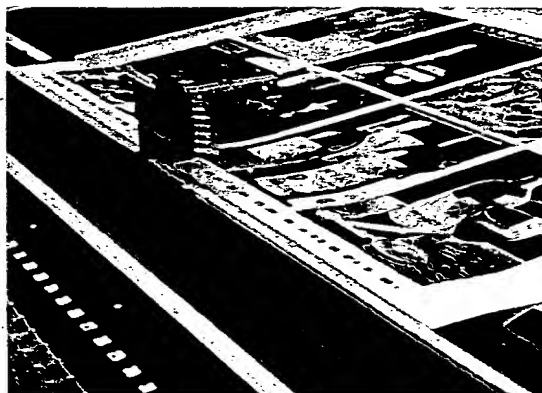
*The ink control  
integrated in the  
central control  
console can  
optimize the ink  
feed in the  
subtlest shades.*

### **RCI finds the right tone.**

The Remote Controlled Inking (RCI) system integrated in the central control console can considerably reduce the set-up of the ROLAND 700. All required ink key pre-settings are available quickly and exactly: directly from the pre-press stages via the PrepressLink or from the electronic plate scanner EPS or the JobCard. For repeat jobs, the printman can load the values immediately from the internal job memory. The subsequent setting of the ink slides can be performed simultaneously for all printing units by a digital signal transfer and optical fibre cables. Thanks to these exact pre-settings, later corrections of the ink feed will seldom be required.

### **CCI automatically applies well.**

The Computer Controlled Inking (CCI) system, the comprehensive ink control technology, is also integrated into the central control console. CCI uses a densitometer to register the ink density during the set-up process and the production run, and can detect deviations even the printman will not notice. The system can measure the complete print control bar in almost no time and can correct, if necessary, the ink slide position of all ink units within a few seconds. Thus, you will obtain a constantly high printing quality over the entire print run, profit from the reduced makeready times and save waste considerably. All measuring results can be logged and are available to the customer as evidence of quality. The CCI is supplemented advantageously by the modern PRINT CONSUL system, offering an additional quality evaluation by a detailed process control, or process diagnostic, in clear text and with extensive recommendations for actions.



*ROLAND CCI: ink is exactly controlled  
from the central control console.*

ROLAND 700 56/57/58

# **Multi CCI is binding for all.**

Roland Multi CCI is an especially effective alternative to CCI if you operate several presses. It can be used to connect all presses to a common ink measuring and control system.

# **Multi CCI 2D can reduce the material costs.**

In particular in packaging and special printing where expensive stock is used in most cases, the Multi CCI 2D ink measuring system can show its benefits: It can perform measurements at any point of the sheet without any contacts. Thus, short control sequences can be placed between the blanks or on the gluing strips. Monochrome plate tints or screen tints can even be measured directly in the subject. Continuous control bars on the sheet front edge are no longer required for the assurance of quality, you can save material costs of considerable amounts.

# **LCS performs precise work.**

Some jobs are extremely difficult. For example, if the forme for a special ink - often the company ink - just consists of very few filigree lines. Because of a correspondingly low ink transfer, the printing quality of such products has caused big problems in most cases. MAN Roland has solved this problem by its Low Coverage Stabilization (LCS) system. An automatic system only opens every second ink slide by a defined size for controlling the ink feed. The closed ink slides remove the excess ink from the roller system and thus increase the circulation between the ink unit and the ink duct. This means no excess emulging on the rollers, no premature overinking of the ink unit and therefore less waste.

# **LCS (Low Coverage**

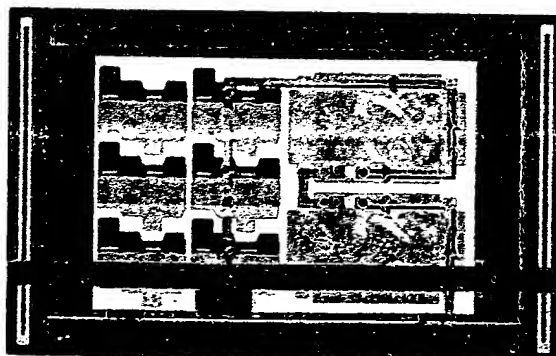
# **Stabilization) can**

# **guarantee a high**

# **printing quality**

# **even for difficult**

# **subjects.**



The Multi CCI 2D non-contact measuring system can measure short sections of the printing control strip, solid or raster

areas everywhere in the subject. This saves the printing control strip running back into the press and prevents sheets from being printed.



## The new variety of inline enhancement.

*You can use a MAN*

*Roland coating*

*module to extend*

*your product range*

*to increasingly*

*required and*

*enhanced printing*

*products, in*

*a particularly*

*efficient manner.*

**Coating modules provide opportunities.**

The ROLAND 700 can offer you the equipment for the most varied inline enhancements, matched to your individual job structure. Several process steps thus require only one pass, resulting in a higher reliability of production, in addition to a high reduction of time and costs. Like the print units, the coating module can be controlled centrally from the central control console by setting the lateral, circumferential and diagonal registers, as well as by an adjustment of the printing pressure. Quickly, conveniently and absolutely reliably.

**Various applications.**

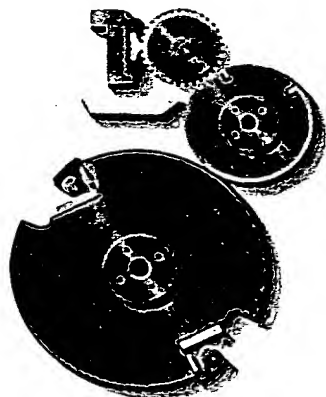
From gold and silver coatings via UV and dispersion coatings up to special varnishes - the ROLAND 700 allows free selections. And the equipment with the double coating module can satisfy even the most stringent customer requirements for more gloss and higher resistance to abrasion. Examples are the application of blister coatings for packagings and the application of "ink, primer, UV varnish". To this effect, the double coating module can be equipped with two transfer modules and the appropriate intermediate dryers.

**Roland Seccomatic dryers for perfection.**

High-quality prints with inline enhancement or an intensive varnish application impose highest demands for drying. A powerful system such as the Roland Seccomatic dryer can significantly increase the reliability of production. Depending on the type of enhancement and the varnishes used, individual variants are available to the ROLAND 700: IR dryers, IR/thermal air dryers as well as UV intermediate and end-of-press dryers.

**Varnish metering means precision.**

The innovative chambered doctor blade technology with its laser-engraved screen roller is unrivalled in a varnish application to be metered exactly and uniformly. This technology allows the application of a defined coating thickness at a high precision over the whole width. In addition, the process is very efficient: an exact metering will considerably reduce the consumption of varnish. In the future, the traditional two-roller coating module will be available on request.



The chambered doctor blade technology also allows fine varnish metering without problems.

### The new varnish changing system.

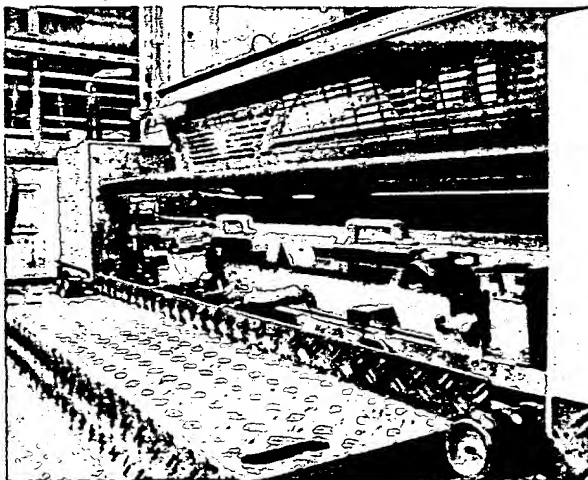
The new varnish system for the ROLAND 700 is an absolute innovation and extremely quick, requiring only the investment in one or more chambered doctor blades, varnish troughs and hose systems for its function. Thus, the entire conversion process can be reduced from more than one hour to approximately 15 minutes. It is important to reduce the cleaning time considerably if a change is made from UV to dispersion coating. Other advantages are the operator convenience, the low loss of varnish and the extremely low amount of rinsing water.

### The new AirGlide delivery for coating modules.

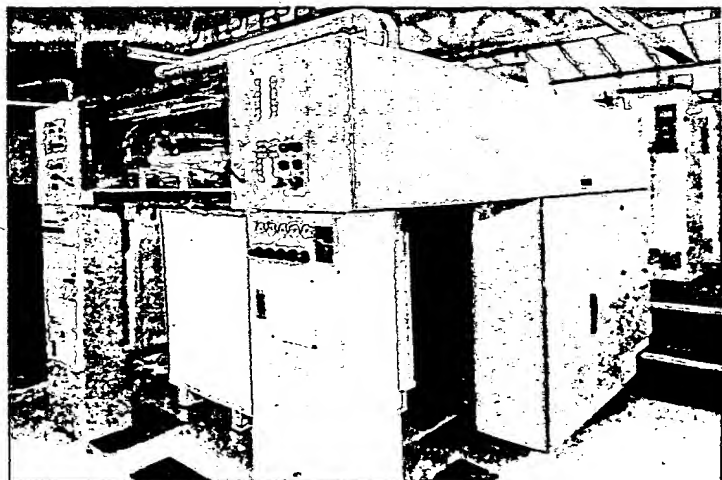
Just as the new standard version for the ROLAND 700 without coatings, the extended AirGlide delivery for coating applications can provide more quality, productivity and ergonomomy for the printman. The smoother sheet path conveys the sheet on an air cushion safely to the delivery. Compared to the current model, the actual extension is downstream of the sheet ascent ramp, extending the settling distance by 220 cm - which additionally saves the freshly applied varnish. Other innovative technical details integrated in the AirGlide delivery are added. This includes, for example, a visual check of the sheet travel - for a correction in time - via numerous openings in

the side wall, and the automated and therefore extremely reliable removal of control sheets, together with the shade-free and aerodynamically optimized delivery gripper systems. In total this is a multitude of advantages for a more efficient production with the ROLAND 700.

**The new varnish changing system - faster conversion and cleaning.**



The new "quick varnish change system": conversion within 15 minutes.



The new AirGlide delivery: saves the freshly applied varnish.

## PECOM - a generation ahead.

**PECOM can implement a digital production system with interfaces to the pre-press stages and the print-house management.**

### **The core:**

#### **PECOM-ServerNet™.**

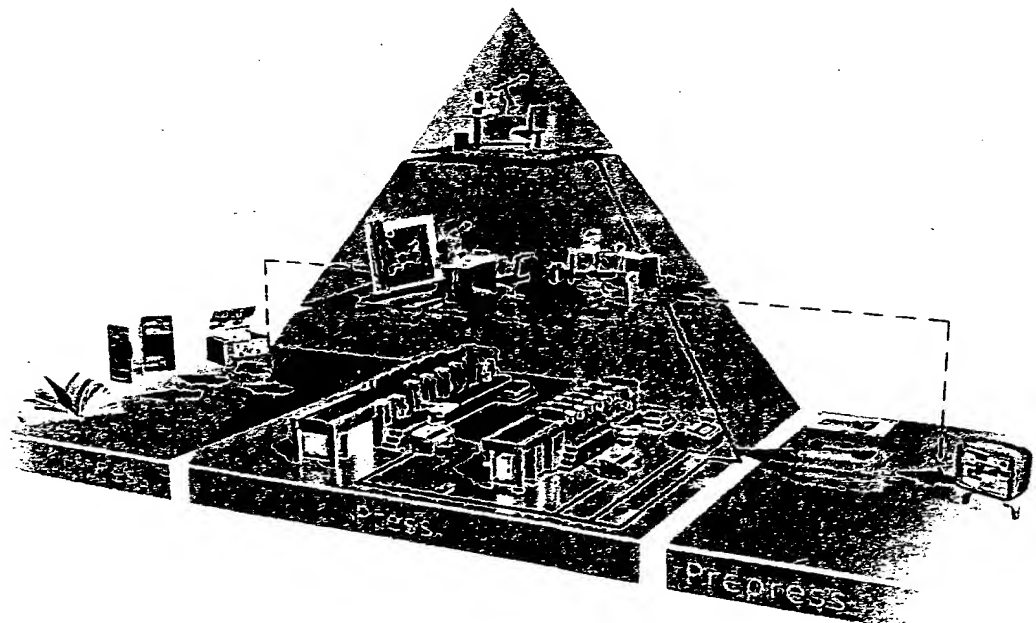
The PECOM ServerNet™ is the core of the new modular MAN Roland product generation consistently designed in Windows NT. As a central job server, it allows all connected components to access the job data. The PECOM ServerNet™ can act as an interface to the machine network to allow an exchange of data between the networked central control consoles. For example, an online access to the complete job data of another press is possible for repeat jobs. Prepared jobs can be accepted by another press within a short time. The new network architecture is compatible with the existing PECOM networks.

### **Platform for interfaces and applications.**

The great benefit of the new server architecture is the flexibility and expandability. Other applications and interfaces executing on one computer or distributed to several computers can be arranged in a modular fashion like a "string of pearls". Using Ethernet, they can connect to other production sections and the administrative area of the print-house.

### **JobPilot for pre-adjustments.**

A central pre-adjustment of the presses is of major importance for an efficient industrial production. The new network platform expands the current possibilities: On the one hand, JobPilot includes the technical job preparation with the appropriate presetting of the press parameters, while on the other hand, PressMonitor can use the status control function to display the current manufacturing state of the jobs, and ensure the use of historical production data.



PECOM is the open electronics system of the future, allowing the flow of data through many production stages and

levels. It can make costs transparent, eliminate double work and optimise the throughput speed. These are important

prerequisites for print-houses producing in accordance with industrial standards.

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### Central presetting, short makeready time.

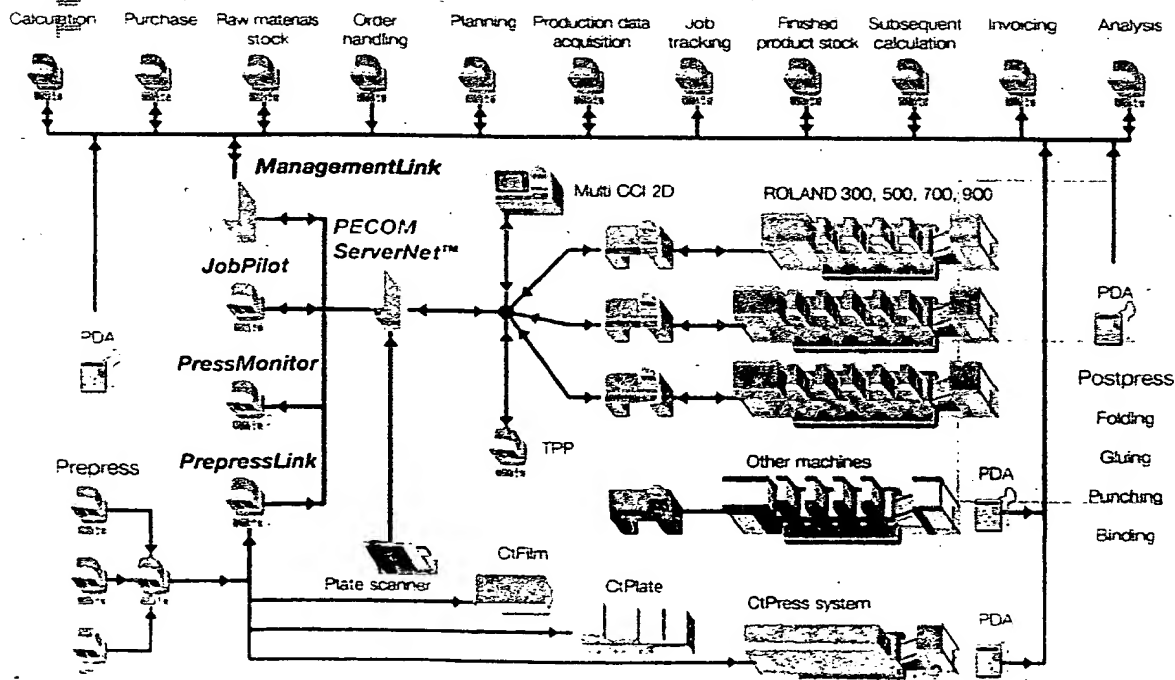
The JobPilot allows the presses to be preset from the office PC. This process is much more cost-efficient than presetting on the production machine, with its significantly higher hourly rates. Furthermore, the production know-how archived from previous jobs can be copied and made available to all machines. The use of repeat and standard jobs results in a more efficient job preparation; time-consuming multiple or wrong entries as well as misunderstandings and queries are avoided. The printroom control function can contribute to an optimization of the job sequence, and to saving time in the press preparation.

### In a leading position at the central control console.

The printman has control of everything at the PECOM central control console. Using an ergonomic touch-sensitive keyboard, the printman can control the entire press system with its additional modules: printing units, deliveries, register settings, ink control, coating modules, dryers and other components. The operator can initiate changes of plates and formats as well as washing processes or changes of stock. Newly collected or stored production data and presettings are passed to the components of the printing system from the central control console. Conversions are at a touch of a finger, quickly and

conveniently. The parameters of the current production can be called on the screen at any time, and are represented in a clear fashion. Menu prompts, working instructions and on-line help texts in the national language support the operation for simple operator control. The profitable effects: automated processes, high throughput speed, perfect quality, reliability of operation and optimum documentation of the jobs.

**PECOM can interconnect multiple printing systems and the process steps from job scheduling to the evaluation of operating data.**



The PECOM-ServerNet™ network platform provides the basis for an individual open system which can network all

technical and commercial processes in a centralised way. Project planning through MAN Roland can provide investment

security and guarantee compatibility, with future extensions of the printing system.

## Ergonomy unlike anything previous.

**User-friendly  
operation,  
soundness and  
highest capacity:  
This is the  
ROLAND 700  
design.**

### **Simple operator control.**

Each detail emphasizes the sophisticated ergonomy of the ROLAND 700. A minor example is the location of the operator controls for right-handed and left-handed persons. The operation of this press is known to be simple and safe for each printman.

### **Easy to maintain.**

Regular maintenance increases the lifetime of your press. Complex maintenance work is really not necessary. Therefore, the ROLAND 700 can make it especially easy for you. For example, the automatic computer-based lubrication system takes care of important lubricating points for a high safety of operation. Daily lubricating intervals are eliminated, and the personnel are relieved of this work.

### **Solid design, safe drive.**

The traditional side frame design is characteristic of the well-built ROLAND 700, giving a superior stiffness to the printing units and ensuring an extremely low-vibration press run. Using a gear train and a longitudinal shaft, the drive prevents mis-registers or doublings during a change in the press speed, or during a change in the oscillation timing or during acceleration.

### **High compatibility with the environment.**

Protect the environment, reduce the costs. The various automation and rationalization facilities of the ROLAND 700 can also contribute to the protection of the environment efficiently. Each printed sheet you save, each litre of cleaners, ink or varnish consumed less will save precious raw materials and avoid environmental pollution.



The ROLAND 700 is easily accessible  
for each printman.

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## Competent service world-wide.

### Good advice on all questions.

MAN Roland and its distribution partners are present in every region of the world. Highly qualified staff members can provide advice regarding the technology, quality and efficiency of our printing machines if you are planning a new investment or wish to optimize your production.

### The Offenbach Graphic Center.

A live demonstration of the press is always most instructive. In our Offenbach Graphic Center approximately 45 printing units are ready for a demonstration on about 3,000 square meters. Even your special stock and your formes can be used for a demonstration.

### MAN Roland sets precedents.

In the Offenbach Training Center MAN Roland can provide training for printmen, electronics and mechanics. CBT, the computer based training via CD ROM, has proved an attractive and efficient method. The interactive three-level training programmes not only convey knowledge, but also include exercises and an extensive technical dictionary.

### Fast spare part supply.

A diagnostic system integrated in the machine is responsible for the safety of production for a perfect run. Should a malfunction occur, contact your local MAN Roland partner, if required. Original spare parts needed can be requested by an electronic access to the stock of the world-wide distribution and service partners: even special parts will be available on the following day in more than 90 % of all cases.

### Using a well-

**developed distri-**

**bution and service**

**network, we are in**

**your proximity**

**and available to**

**you for all issues**

**concerning**

**sheet-fed offset**

**printing.**



You can rely on the world-wide MAN  
Roland service

For more profitability by design.

ROLAND 700			
Equipment	Basic version	Coating module, delivery with extension	Reversible perfecting presses
Printing units	2 - 8	2 - 8	2 - 10
Sheet format (mm)			
min.	340 x 480	340 x 480	340 x 480
max.	740 x 1,040	740 x 1,040	720 x 1,040
Stock thickness (mm)			
Standard	0.04 - 1.0	0.04 - 1.0	0.06 - 0.6*
Option			0.06 - 0.4** 0.1 - 0.5** 0.2 - 0.6**
Print area max. (mm)	715 x 1,020	715 x 1,020	700 x 1,020**
Feeder pile height (mm)	1,180	1,180	1,180
Delivery pile height (mm)	1,080	1,080	1,080
Sheet output per hour			
face printing	15,000	15,000	15,000
perfecting printing	-	-	12,000

\*For face printing.

\*\*For perfecting printing.

# ROLAND 700 Printing units, dimensions and details.

## ROLAND 700

Equipment	Basic version	Coating module, delivery with extension	Reversible face and perfecting pressos
Printing units	2 - 8	2 - 8	2 - 10
Sheet format (mm)			
min.	340 x 480	340 x 480	340 x 480
max.	740 x 1,040	740 x 1,040	720 x 1,040
Print area max. (mm)	715 x 1,020	715 x 1,020	700 x 1,020**
Stock thickness (mm)	Standard 0.04 - 1.0	0.04 - 1.0	0.06 - 0.6* 0.06 - 0.4** 0.1 - 0.5** 0.2 - 0.6**
Option			
Feeder pile height (mm)	1,180	1,180	1,180
Delivery pile height (mm)	1,080	1,080	1,080
Length/width/height (mm)			
2 printing units	8,136 x 3,450 x 2,140	11,145 x 3,450 x 2,140	8,136 x 3,450 x 2,140
3 printing units	9,316 x 3,450 x 2,140	12,325 x 3,450 x 2,140	9,316 x 3,450 x 2,140
4 printing units	10,496 x 3,450 x 2,140	13,505 x 3,450 x 2,140	10,496 x 3,450 x 2,140
5 printing units	11,676 x 3,450 x 2,140	14,685 x 3,450 x 2,140	11,676 x 3,450 x 2,140
6 printing units	12,856 x 3,450 x 2,140	15,865 x 3,450 x 2,140	12,856 x 3,450 x 2,140
7 printing units	14,036 x 3,450 x 2,140	17,045 x 3,450 x 2,140	14,036 x 3,450 x 2,140
8 printing units	15,216 x 3,450 x 2,140	18,225 x 3,450 x 2,140	15,216 x 3,450 x 2,140
9 printing units			16,405 x 3,450 x 2,140
10 printing units			17,585 x 3,450 x 2,140

Sheet output per hour  
 Face printing  
 Perfecting printing

15,000

15,000

15,000  
 12,000

\*For face printing.  
 \*\*For perfecting printing.



Profitability by Design.

09315796 051801

# ROLAND700: Standards and options. 36/STEP

Printing units	2	3	4	5	6	7	8	10
Suction tape feed board with sheet deceleration	X	X	X	X	X	X	X	X
Automatic format adjustment	X	X	X	X	X	X	X	X
Automatic stock thickness setting	X	X	X	X	X	X	X	X
Register control for circumferential, lateral and diagonal registers	X	X	X	X	X	X	X	X
RCI ink control	X	X	X	X	X	X	X	X
Automatic ink unit separation	X	X	X	X	X	X	X	X
Remote adjustment of the ink distribution unit	X	X	X	X	X	X	X	X
Ink duct roller reversal	X	X	X	X	X	X	X	X
Adjustment of the axial clearance for the inking rollers	X	X	X	X	X	X	X	X
Speed compensation for ink and damping units	X	X	X	X	X	X	X	X
Roland Deltamatic damping units	X	X	X	X	X	X	X	X
Ceramic-coated damping duct roller	X	X	X	X	X	X	X	X
Automatic inking roller wash-up device	X	X	X	X	X	X	X	X
Automatic blanket washer	X	X	X	X	X	X	X	X
Automated PPL change of plates	X	X	X	X	X	X	X	X
Rear plate clamping bar, divided into 7 segments	X	X	X	X	X	X	X	X
Manual non-stop device, for feeders	X	X	X	X	X	X	X	X
Visually controllable sheet travel in the AirGlide delivery	X	X	X	X	X	X	X	X

[illegible]

X = Standard, O = Option.  
The table contains a selection of important equipment details.  
Further information and special configurations on request.



09315796-051301



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The ROLAND 700 is subject to continuous enhancement and altered according to the results of research and development gained through practical experience. Therefore, we reserve the right to modify design features and technical data. Only the confirmation of order will be binding.

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